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ABSTRACT

Presented in these 13 teacher's guides for grades K-12 are lesson plans and ideas for integrating language arts and environmental education. Each lesson originates with a fundamental concept pertaining to the environment and states, in addition, its discipline area, subject area, and problem orientation. Following this, behavioral objectives and suggested learning experiences are outlines. Behavioral objectives include cognitive and affective objectives and skills to be learned, while learning experiences list student-centered in class activities and outside resource and community activities. Space is provided for teachers to note resource and reference materials--publications, audio-visual aids, and community resources. The guides are supplementary in nature and the lessons or episodes are designed to be placed in existing course content at appropriate times. This work was prepared under an ESEA Title III contract. (BL)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONMENT

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts Grade K

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
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SE 012 634

INSTRUCTION - CURRICULUM - ENVIRONMENT

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RAM FOR ENVIRONMENTAL EDUCATION

nguage Arts ______ Grade ___K___

III E.S.E.A.
ESA's 3-8-9
54301

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help
of over a hundred teachers, year long meetings, a summer worksh
ecologists, this guide means realistic, developed aid for you.
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are d
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know you
   to adapt, adopt, or use. Be design, the range of suggestions
   mentation and usage are even wider. Many episodes are self-c
   others can be changed in part or developed more keenly over
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning
   plan. The reasons are simple. No guide has all the answers
   unless viewed in the context of your classroom situation. Th
   give it a triple reading, check over the resources listed, ma
   prime your students, and seek help. The Project personnel an
   knowledgement page stand ready to aid your efforts. Feel free
4. The Project Resource Materials Center serves all CESA 3, 8, a
   private. We will send available materials pre-paid. Call fo
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school libra
   Center materials. Please offer suggestions, comments, or adv
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratc
   suggestions on the episode pages or use the attached evaluati
   lected in late May next year and will be used in our revision
   reactions and suggestions--negative and positive. Please note
   in the episodes may refer to specific, local community resour
   cases, individual school districts and teachers will have to
   stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--surviv
   Creation's beauty and complexity--often noted as the work of
   and human energy to save. A year's work by a hundred of your
   gesture. Without you, their work will crumble, and so might w
   let us live to think, feel, and act in harmony with our world.

---

1. Cognitive means a measurable mental skill, ability, or proc
2. Affective refers to student attitudes, values, and feelings
3. APWI means Acceptable Performance Will Include (labels a co
4. EPA - Environmental Problem Area.

PREFACE

to excite students about their environment, help is ready. Thanks to the efforts
red teachers, year long meetings, a summer workshop, university consultants and
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nd usage are even wider. Many episodes are self-contained, others open-ended, still
be changed in part or developed more keenly over a few weeks. These built-in
es allow you to explore.
that you try the episodes and suggested learning experiences but please pre-
reasons are simple. No guide has all the answers and no curriculum will work
ed in the context of your classroom situation. Thus, before trying an episode,
riple reading, check over the resources listed, make mental and actual notes,
students, and seek help. The Project personnel and teachers listed on the ack-
nt page stand ready to aid your efforts. Feel free to ask their help in pre-planning.
Resource Materials Center serves all CESA 3, 8, and 9 area schools--public and
e will send available materials pre-paid. Call for any help, materials, or to
ne 432-4338.
the Project ICE Bibliography in your school library for available Resource
rials. Please offer suggestions, comments, or advice--at any time--so that this
grow. Let's help each other.
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on the episode pages or use the attached evaluation format, which will be col-
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to think, feel, and act in harmony with our world.

Editorial Board

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means a measurable mental skill, ability, or process based on factual data.
refers to student attitudes, values, and feelings.
s Acceptable Performance Will Include (labels a cognitive or mental performance.)
ironmental Problem Area.

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Robe
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CONCEPT 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Through pantomine, the child will recognize the sun as the energy source. Affective: Child accepts why life depends upon the correct amount of sunshine for strength & growth.	I. Student-Centered in class activity 1. Two children representing plants in dramatic play & pantomine show the differences in growth & strength of the 2 plants in experiment. Third child represents the sunshine. 2. Discussion with riddles. (Ex.- What is big, yellow, & round & doesn't make a sound. It's far, far away, but we still see it during the day. 3. Read story about the sun. 4. Show picture that includes the sun. Have children describe what they see. Could make up a story about it. 5. Bulletin board display. Sun in center; children place picture objects around that depend on the sun. (Label them also, if desired.)
Skills to be Learned Oral expression through dramatic play Discussion about film, if used.	

sun, the basic source
converted through Discipline Area Language Arts
is into a form all Subject Language Arts
use for life processes. Problem Orientation Energy Use - Grade Kind.

CTIVES	SUGGESTED LEARNING EXPERIENCES	
panto- recog- energy cepts n the n-	I. Student-Centered in class activity 1. Two children representing plants in dramatic play & pantomine show the differences in growth & strength of the 2 plants in experiment. Third child represents the sunshine. 2. Discussion with riddles. (Ex.- What is big, yellow, & round & doesn't make a sound. It's far, far away, but we still see it during the day. 3. Read story about the sun. 4. Show picture that includes the sun. Have children describe what they see. Could make up a story about it. 5. Bulletin board display. Sun in center; children place picture objects around that depend on the sun. (Label them also, if desired.)	II. Outside Resource and Community Activities
ough lm,		

Resource and Reference Materials	Continued and Additional Suggested Lear
Publications: Books: The Sun, Our Nearest Star, by Franklyn M. Branley, Crowell Co., 1961	
Audio-Visual:	
Community:	

aterials	Continued and Additional Suggested Learning Experiences
r, by owell	

CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area Lan

Subject Lan

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Children arrange each system in order. Affective: Children will accept that all organisms cannot live alone.	I. Student-Centered in class activity A. Find pictures & make ecological interdependence pictures. Bunny Fox Grass B. Paste on large drawing: Food Chains Deer Grass Hunter C. Seaweed Little Fish Big Fish D. Their own family chain-int typical foods they eat. Man Cow (meat & Grass
Skills to be Learned Language development as evidenced in discussion of animal life of locale Math game (Fishing for number facts)	

ving organisms interact among

s and their environment,

n intricate unit called an

.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Ecosystem Grade K

ORAL OBJECTIVES

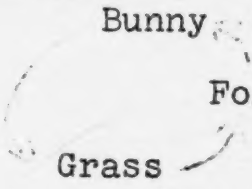
Children arrange
in order.
Children will
all organisms
alone.

e Learned
evelopment as
in discussion
life of locale
(Fishing for
ets)

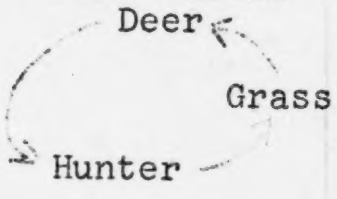
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

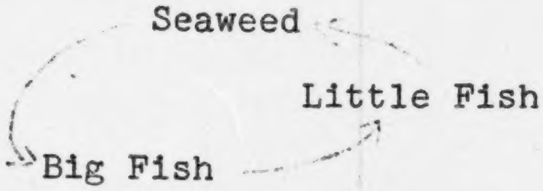
A. Find pictures & make ecological interdependence pictures.


Bunny
Fox
Grass

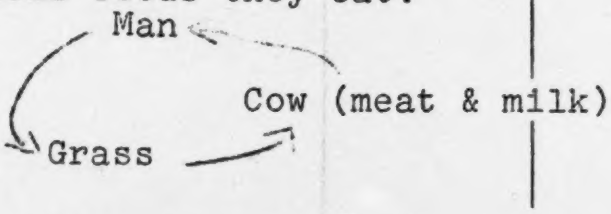
B. Paste on large drawing:
Food Chains


Deer
Grass
Hunter

C.


Seaweed
Little Fish
Big Fish

D. Their own family chain-into typical foods they eat.


Man
Cow (meat & milk)
Grass

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Audio-Visual: Science Material Original drawings of students Games Smokey songs Community: Conservation person	

terials	Continued and Additional Suggested Learning Experiences
nts	

C 3. Environmental factors are limiting
O
N on the numbers of organisms living
C
E within their influence, thus, each
P
T environment has a carrying capacity.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Children will show through oral discussion ability to make simple & logical judgments. Affective: Children will know that size of area limits fun & activities. Skills to be Learned Oral skills Observation Making judgments Giving reasons for conditions & feelings	I. Student-Centered in class activity 1. Blocks in a container. One child can demonstrate that placing blocks in a box is limited. Keep putting in blocks until container will hold no more. Discussion & making oral judgments as to it only holding a certain number. 2. Mark off a small area & and crowd with children till filled. Then, taking the number of children in the small area, take them outdoors and let on playground area while others observe. 3. Return to room. Follow up with questions: How did you feel? What could you do & not do in each space?

al factors are limiting

of organisms living Discipline Area Language Arts

nfluence, thus, each Subject Language Arts

s a carrying capacity. Problem Orientation Population Density Grade K

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
dren will l discus- make simple nts. dren will f area ivities. rned s for lings	1. Blocks in a container. One child can demonstrate that placing blocks in a box is limited. Keep putting in blocks until container will hold no more. Discussion & making oral judgments as to it only holding a certain number. 2. Mark off a small area & and crowd with children till filled. Then, taking the number of children in the small area, take them outdoors and let on playground area while others observe. 3. Return to room. Follow up with questions: How did you feel? What could you do & not do in each space?	

Resource and Reference Materials	Continued and Additional Suggested
Publications: Rabbit Hill by Robert Lawson Audio-Visual: Film: Rabbit Hill, color, 2 reels 53 minutes, Brown County Library. Community:	

Materials	Continued and Additional Suggested Learning Experiences
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eels	
ty	

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4. An adequate supply of pure water is essential for life.

Discipline A

Subject

Problem Orie

BEHAVIORAL OBJECTIVES	SUGGESTE
Cognitive: The learner will tell a story about going without water. The learner will list ways he uses water at school. Affective: The class will offer ways in which they use water. The list will be written on board.	I. Student-Centered in activity 1. Show pictures of th places in the world water is found (ocea pond, river) 2. Show pictures of wh there isn't water (d tundras) 3. Make bulletin board above pictures. 4. To see if water is sential, the childre will not use any wat a given amount of ti 5. Children will list things they were not to do because of not able to use water. 6. Children will tell about a. how they felt whe couldn't use water b. why he needs wate 7. The children could figure out a lunch m meal which would not water.
Skills to be Learned Listing what could not be done if there was no water Giving a talk about the need of water Story-telling	

ate supply of pure

sential for life.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Adequate Water Supply Grade K-1

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
The learner story about t water. The list ways r at school. The class will n which they he list will n board.	I. Student-Centered in class activity 1. Show pictures of the many places in the world where water is found (ocean, lake, pond, river) 2. Show pictures of where there isn't water (deserts, tundras) 3. Make bulletin board of above pictures. 4. To see if water is essential, the children will not use any water for a given amount of time. 5. Children will list all things they were not able to do because of not being able to use water. 6. Children will tell story about a. how they felt when they couldn't use water b. why he needs water 7. The children could try to figure out a lunch menu or meal which would not use water.	II. Outside Resource and Community Activities
Learned t could not here was no lk about water ng		

Resource and Reference Materials	Continued and Additional Suggested Learning
Publications:	
Audio-Visual: pictures of where water is found & where water is not found	
Community:	

erials	Continued and Additional Suggested Learning Experiences

C 5. An adequate supply of clean air is
O
N essential because most organisms Discipline Area L
C
E depend on oxygen, through respiration, Subject L
P
T to release the energy in their food. Problem Orientati

BEHAVIORAL OBJECTIVES	SUGGESTED LEA
Cognitive: There is other places where there is a lack of air, such as plastic bags, trunks, sand banks. Children will identify these places. Affective: The child will respond to the teacher's question: If you saw a refrigerator outside what would you do?	I. Student-Centered in class activity A. Class activity 1. Teacher draws (cross-section) of child in c air-tight appliance. A inside designated by c lating arrows-to child supply is exhausted in limited place, one ca survive; so all air su has its limits in vari amounts in various are must be conserved or w used. Problem focused: Lack oxygen causes sickness adverse effects.
Skills to be Learned Descriptive words Good speaking skills Building a plot Good listening & assimilation skills	

te supply of clean air is

La cause most organisms — Discipline Area Language Arts

La ygen, through respiration, — Subject Language Arts

io he energy in their food. — Problem Orientation Suffiecient Air Grade K

AR L OBJECTIVES

ere is other
here is a
uch as
- trunks,
cl ildren
Ai these
ci
d. e child will
n teacher's
ar ou saw a
up utside what
ic
ea
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class activity
    1. Teacher draws (cross-section) of child in close air-tight appliance. Air inside designated by circulating arrows-to child. As supply is exhausted in a limited place, one cannot survive; so all air supply has its limits in various amounts in various areas & must be conserved or wisely used.
    Problem focused: Lack of oxygen causes sickness or adverse effects.

II. Outside Resource and Community Activities
  A. Outside activity
    1. Safety pamphlet from police department or a newspaper article relating death or danger of playing with or in a discarded refrigerator, freezer, etc.

Resource and Reference Materials	Continued and Additional Suggested
Publications:	
Audio-Visual:	
Community:	

Le erials	Continued and Additional Suggested Learning Experiences

C 6. Natural resources are not equally
O
N distributed over the earth or over Discipline Area
C
E time and greatly affect the geographic Subject
P
T conditions and quality of life. Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Children will identify plants & animals of an arid & tropic area & classify through oral discussion & observation. Affective: Each child will select whether he would like to live in the jungle or where he now lives & tell why.	I. Student-Centered in class activity 1. Show to class color photos of desert plant & animal life in environment. 2. Color photos of jungle or tropical environment. 3. Through observation & discu sion, children point out & compare two environments.
Skills to be Learned Observation Oral discussion Making judgments Vocabulary Classification	4. Develop terms: desert, jung 5. Point out heat, lack of water & moisture. a. If desired, as part of another lesson, teacher may also point out seasons. 6. Flannelgraph presentation a. 6 people vs. 4 plates b. dogs vs. no. of bones

are not equally

earth or over Discipline Area Language Arts

ect the geographic Subject Animal Life

ty of life. Problem Orientation Resource Usage Grade K

IVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
will als ea l on. will d lik or ell	1. Show to class color photos of desert plant & animal life in environment. 2. Color photos of jungle or tropical environment. 3. Through observation & discussion, children point out & compare two environments. 4. Develop terms: desert, jungle 5. Point out heat, lack of water & moisture. a. If desired, as part of another lesson, teacher may also point out seasons. 6. Flannelgraph presentation a. 6 people vs. 4 plates b. dogs vs. no. of bones	

Resource and Reference Materials	Continued and Additional Suggeste
Publications: **Audio-Visual:** *Living Desert*, color photos Walt Disney Productions *Kim, Jungle Boy*, color paintings **Community:** classroom or school garden	

terials	Continued and Additional Suggested Learning Experiences
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7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Ar

Subject

Problem Orien

BEHAVIORAL OBJECTIVES

Cognitive: Children will show through discussion, murals or pictures, that they know changes in living are made through economic conditions & increased leisure time.

Affective: The children will make a verbal choice between 2 choices.
Example: Would you have more clothes if you lived long ago or now? Did your mother have to know how to do more things with material long ago or now?

Skills to be Learned
Listening skills
Visual & oral skills

SUGGESTED

I. Student-Centered in cla
activity
A. Class:Varied & Invol
Students
1. The first part is
listening to two re
Story relates how o
person with a needl
a service for a sma
community for servi
she required from o
As opposed to: Pion
life where each fam
had to do each serv
himself to maintain
family unit's needs
2. Discussion questio
following record on
economic changes.
a. In pioneer famil
many people had t
in order for the
girl & boy to get
clothes?
Example: Dad & br
raised the sheep
sheared them, rai
food to feed shee
Grandmother & mot
washed & combed t
wool. Grandmother
to make threads. (

as facilitating transportation,
ions, population growth, Discipline Area Language Arts
eisure time have a great Subject Language Arts
anges in land use and Problem Orientation Leisure Time Grade K
lation density.

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
iren will cussion, es, that in through ons & time. children al choice s. ou have you lived Did your now how s with or now? rned s kills	A. Class: Varied & Involving Students 1. The first part is listening to two records. Story relates how one person with a needle did a service for a small community for services she required from others. As opposed to: Pioneer life where each family had to do each service himself to maintain the family unit's needs. 2. Discussion questions following record on economic changes. a. In pioneer family, how many people had to work in order for the little girl & boy to get new clothes? Example: Dad & brother raised the sheep & sheared them, raised food to feed sheep. Grandmother & mother washed & combed the wool. Grandmother had to make threads. (cont.)	

Resource and Reference Materials

Publications:
Hardbound text going with SRA kit which should be used with opaque projector in conjunction with the record.

Audio-Visual:
SRA Grade I Social Studies Kits
- Part I Records #12 & #13 (Dealing with economics in a family in the past as compared to today's living)
- Part II Records #15 & #16 (Dealing with leisure time being used for pleasure away from home or different activities at home, according to individual choice.

Community:
Library for photo plates showing changes in environment due to machinery, various resources, etc.

Continued and Additional Suggested L

I. (cont.)
Mother wove, dyed & sewed mat
dress & trousers.
b. When you who live in this ye
do you get it?
c. Who finds it easier to get d
one dress?
d. In the little town of the se
Tom get his trousers fixed?
e. Why was Mrs. Brown's needle
f. As more people live in a sma
can they get new clothes like
by raising sheep & making the
g. Would you like this? Why? Li
people live closer together.
3. Make mural, depicting scenes b
e.g. Pioneer vs today
4. Make up a skit depicting 2 way

aterials	Continued and Additional Suggested Learning Experiences
	I. (cont.)
SRA kit	Mother wove, dyed & sewed material to make a
h opaque	dress & trousers.
with	b. When you who live in this year want a dress, how
	do you get it?
	c. Who finds it easier to get dresses or more than
	one dress?
	d. In the little town of the second story, how did
	Tom get his trousers fixed?
	e. Why was Mrs. Brown's needle so important to her?
	f. As more people live in a small area like a town,
	can they get new clothes like the pioneer family
es Kits	by raising sheep & making their own material?
(Dealing	g. Would you like this? Why? Life changes as more
ly in	people live closer together.
today's	3. Make mural, depicting scenes based on records.
	e.g. Pioneer vs today
(Dealing	4. Make up a skit depicting 2 ways of life.
used for	
or	
home,	
choice.	
showing	
due to	
rces, etc.	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Languag

Subject Languag

Problem Orientation Pop

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: The student will help to form a list of objectives for a trip. Affective: Children will voluntarily participate in a discussion on a teacher made question. Example: Why don't we leave the animals in the woods where they are happy instead of penning them up in parks or zoos? After they have had a poll of hands to show who wants to pen the animals, have discussion on the reasons they chose.	I. Student-Centered in class activity A. Classroom activities 1. Have children make believe he is one of the animals he knows and tell: a. Where he lives b. Where he wishes he could live c. Why he is there d. How he helps man or other animals 2. Make a bulletin board using the idea of the above activity. 3. Make believe some of the children are various animals in pens & others are human visitors, what would the animals talk about?	II.
Skills to be Learned Write letters List necessary things to be accomplished Writing stories		

as facilitating transportation,

ions, population growth, Discipline Area Language Arts

eisure time have a great Subject Language Arts

anges in land use and Problem Orientation Population Grade K-1
iation density.

BJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom activities
    1. Have children make believe he is one of the animals he knows and tell:
      a. Where he lives
      b. Where he wishes he could live
      c. Why he is there
      d. How he helps man or other animals
    2. Make a bulletin board using the idea of the above activity.
    3. Make believe some of the children are various animals in pens & others are human visitors, what would the animals talk about?

II. Outside Resource and Community Activities
  A. Outside activities
    1. Do necessary preparing for a bus field trip.
      a. Letters
      b. Phone calls
      c. Money needed
      d. List of what is to be observed or accomplished on the trip
      e. Discussion of how one should behave
    2. After the trip to a recreational area, the teacher will lead a discussion using all or some of these questions:
      a. Why did we go to the trout ranch?
      b. Why do other people go?
      c. When is the trout ranch open to the public? Why?
      d. Why do people from far away come here?
      e. Where do these people come from?
      f. Why do we like these people to come here?
      g. Did these people always come from (cont.)

Resource and Reference Materials	Continued and Additional Suggested Learning
Publications:	II. (cont.) Green Bay, Milwaukee, etc.? Why are now? h. Do these people bring something we i. Do these people bring something we (Pollution) j. What else happens because these peo (Roads, materials for building, foo 3. Write a story about their trip.
Audio-Visual: Pictures of what is done in recreational areas	
Community: Resource unit such as: Park Zoo Trout ranch Swimming area Water skiing area Snowmobiling area Fishing ponds Boating area	

ials	Continued and Additional Suggested Learning Experiences
	II. (cont.) Green Bay, Milwaukee, etc.? Why are they coming now? h. Do these people bring something we need? (Money) i. Do these people bring something we don't need? (Pollution) j. What else happens because these people come north? (Roads, materials for building, food) 3. Write a story about their trip.

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8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area L

Subject L

Problem Orientation C
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BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Through recorded description, demonstrate their awareness of nature and by listening to other descriptions, demonstrate their ability to respect another person's ideas. Affective: Notice and appreciate and describe items in their environment through the sense of touch. Share with others.	I. Student-Centered in class activity 1. Read poem, "Abigail's Fingers" to class.	II
Skills to be Learned Observation Oral expression Tactile awareness Listening		

ESEA Title III - 59-70-0135-1 Project I-C-E

ral, economic, social, and

factors determine status

values and attitudes

s environment.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Cultural Attitudes Grade K

IORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Through re- ript'on, demon- ir awareness of by listening to riptions, demon- ir ability to other person's Notice and and describe heir environ- h the sense Share with	I. Student-Centered in class activity 1. Read poem, "Abigail's Fingers" to class.	II. Outside Resource and Community Activities 1. Have class go outside, schoolyard or nearby park. Feel and touch those things which are touchable. (Stones, grass, bugs, weeds, bark) 2. Have tape recorder along. (More than one, if possible.) Children can describe how these things feel. 3. Later in the classroom, the children can listen to the tape. Maybe could think of music they listen to that would sould like their descriptions.
e Learned n ssion areness		

Resource and Reference Materials	Continued and Additional Suggested Lear
Publications: Fingers Are Always Bringing Me News by Mary O'Neill.	
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
ging Me News	

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Lan

Subject Lan

Problem Orientation

BEHAVIORAL OBJECTIVES

Cognitive: The children will identify the necessities for life on a space ship by drawing or cutting pictures of the needed supplies for a trip in space.

Affective: Children will support the idea that the space ship is a limited ecosystem which can be compared to earth in the amount of time it can sustain life.

Skills to be Learned

- Mental imagery
- Critical judgement
- Possible alterations
- Oral skills
- motor skills
- Analogy - Earth is like a space ship

SUGGESTED LEARNI

I. Student-Centered in class activity
  A. Classroom
    1. Teacher diagrams on boa along with class questio & discussion.
      a. Let's look at a space ship.
      b. What would be in it? (Astronauts)
      c. They are going out in space. What will they to stay alive? (Air, food, water, go- energy & fuel)
      d. Can a car go without
      e. Can they stay out in for a year? Why not? (Samll space - limite air, food, water & go- must be carried within ship)
      f. How long do you think will last? (Food, air, for 2 weeks. Go-power week)
      g. What will happen? (A will die)
    2. The children will draw out pictures of food, a which are needed for the trip.

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Discipline Area Language Arts

Subject Language Arts

Problem Orientation Conservation of Resources Grade K

OBJECTIVES

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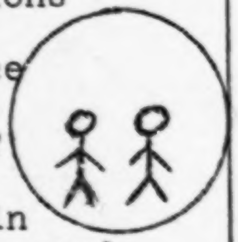
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. Teacher diagrams on board along with class questions & discussion.
      a. Let's look at a space ship.
      b. What would be in it? (Astronauts)



      c. They are going out in space. What will they need to stay alive? (Air, food, water, go-power, energy & fuel)
      d. Can a car go without gas?
      e. Can they stay out in space for a year? Why not? (Samll space - limited - All air, food, water & go-power must be carried within the ship)
      f. How long do you think it will last? (Food, air, water for 2 weeks. Go-power for 1 week)
      g. What will happen? (Astronauts will die)
    2. The children will draw or cut out pictures of food, air & water which are needed for the space trip.

II. Outside Resource an
Community Activities

Resource and Reference Materials	Continued and Additional Suggested L
Publications:	
Audio-Visual:	
Community:	

rials	Continued and Additional Suggested Learning Experiences

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Langu

Subject Langu

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Children will experience direct results of poor & wise use & poor & good planning in a classroom situation. Affective: Children will offer their responses to "Save Today for Tomorrow". Skills to be Learned Oral skills Time limit planning Critical judgements Listening	I. Student-Centered in class activity A. Classroom 1. How many have ever been to a pot-luck supper or dinner? What is it for? (We take one thing & share many, in process of this activity.) Example - Mother says we will go to the pot-luck & shw will take a fruit cocktail cake with nuts & chocolate chips. If the cake was baked Sat. evening & you ate it for a breakfast snack Sunday morning, there would be no cake & no time to bake another, so you cannot go to the pot-luck. 2. How many days a week do we come to school? (5 days make up one school week) 3. I am going to give you enough crackers today (Monday) to last you a school week. You are to keep them in your box & each day, you will take the amount of crackers we ordinari get with our milk break. Remem we are going to get 10 cracker just enough for 2 at each (con

ESEA Title III - 59-70-0135-1 Project I-C-E

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Discipline Area Language Arts

Subject Language Arts

Problem Orientation Food Grade K

RAL OBJECTIVES

Children will
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Classroom

1. How many have ever been to a pot-luck supper or dinner? What is it for? (We take one thing & share many, in process of this activity.) Example - Mother says we will go to the pot-luck & shw will take a fruit cocktail cake with nuts & chocolate chips. If the cake was baked Sat. evening & you ate it for a breakfast snack Sunday morning, there would be no cake & no time to bake another, so you cannot go to the pot-luck.
2. How many days a week do we come to school? (5 days make up one school week)
3. I am going to give you enough crackers today (Monday) to last you a school week. You are to keep them in your box & each day, you will take the amount of crackers we ordinarily get with our milk break. Remember, we are going to get 10 crackers, just enough for 2 at each (cont.)

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested Lear
Publications:	I. (cont.) day's milk break. If we eat them all have any left for tomorrow? If you e day's usual amount, will you have en week? Have control group for demonst 2 each day. Let other plan on own & t tally on board or chart.
Audio-Visual:	
Community:	

aterials	Continued and Additional Suggested Learning Experiences
	I. (cont.) day's milk break. If we eat them all today, will we have any left for tomorrow? If you eat more than one day's usual amount, will you have enough to last all week? Have control group for demonstration that eat 2 each day. Let other plan on own & teacher keeps tally on board or chart.

C 10. Short-term economic gains may
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BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: Through answering questions about problems of over-usage in school, classroom & community, children will tell alternatives of good use & demonstrate environmental resources are limited & can run out without careful, planned use & distribution. Affective: The students will create a puppet show pointing out situations of wise & unwise use.	I. Student-Centered in class activity A. Classroom 1. Class story, skits or puppet shows as results of teacher-given example. For motivation, use one of the 3 examples below: a. Our janitor fills up the soap dispenser once a day before school with enough soap for the rest of the day, (if we use one pump when we wash our hands at each lavatory break & before lunch). Now some people here have kept pushing the dispensers & the soap has gone down the drain & not even used to clean hands. Someone used soap to wash mud off their shoes. Now if just half our class did this at morning recess, our soap would be all used up, & at dinner we would not be able to get hands clean & germs washed off well without soap. One half of (cont.)
Skills to be Learned Creative writing Critical thinking Oral skills Choosing good alternatives Dramatization Illustrating Motor skills in making puppets	

onomic gains may

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Discipline Area Language Arts

Subject Language Arts

Problem Orientation Conservation of Resources Grade K

ECTIVES	SUGGESTED LEARNING EXPERIENCES I. Student-Centered in class activity	 II. Outside Resource and Community Activities
answering blems of l, class- hildren ives of rate rces un out lanned udents et show tions of ed ernatives aking	A. Classroom 1. Class story, skits or puppet shows as results of teacher-given example. For motivation, use one of the 3 examples below: a. Our janitor fills up the soap dispenser once a day before school with enough soap for the rest of the day, (if we use one pump when we wash our hands at each lavatory break & before lunch). Now some people here have kept pushing the dispensers & the soap has gone down the drain & not even used to clean hands. Someone used soap to wash mud off their shoes. Now if just half our class did this at morning resess, our soap would be all used up, & at dinner we would not be able to get hands clean & germs washed off well without soap. One half of (cont.)	

Resource and Reference Materials

Publications:

Audio-Visual:
Photographs of wild flowers & trees

Community:

Continued and Additional Suggested Lea

I. (cont.)
our class would not even get thei
clean once during the day if this
1. Divide the class into groups &
use too much of something & tha
without anything for later use.
2. Example - Using all red paper
decorations & nothing left for
3. Teacher should point out that
are limited & can develop to ou
b. If we had only 6 trees on our la
house & we cut them all down for
there wouldn't be any shade from
1. Discussion: What might this pe
there would be trees left & all
Example - Each time one is used
planted, etc.
2. Activity - Class could create
with individual pictures, the s
poor management of trees.
c. If we pick all the flowers in a
they would look beautiful in our
two & then we have to throw them
some flowers growing in the woods
& grow again next year. Many peop
see & enjoy them. The government
to keep people from picking too m
killing them off altogether.
1. Discussion of best alternatives
understanding.
2. Have students tell what they wo
some wild flowers would be left
Some answers - do not pick at a
2. Have children plan dialogue & cons
on a puppet show pointing out situa
unwise uses.

e Materials	Continued and Additional Suggested Learning Experiences
	I. (cont.) our class would not even get their hands really clean once during the day if this kept up. 1. Divide the class into groups & find other ways we use too much of something & that may leave us without anything for later use. 2. Example - Using all red paper for Christmas decorations & nothing left for Valentine's Day. 3. Teacher should point out that all mentioned uses are limited & can develop to outdoor environment.
	b. If we had only 6 trees on our land or around our house & we cut them all down for fire wood in winter, there wouldn't be any shade from heat in summer.
owers & trees	1. Discussion: What might this person do to be sure there would be trees left & all year around? Example - Each time one is used, two could be planted, etc. 2. Activity - Class could create a story & illustrate with individual pictures, the story pointing out poor management of trees.
	c. If we pick all the flowers in a woods in spring, they would look beautiful in our home for a day or two & then we have to throw them away but if we let some flowers growing in the woods, they would re-seed & grow again next year. Many people would be able to see & enjoy them. The government tried to find ways to keep people from picking too many wild flowers & killing them off altogether. 1. Discussion of best alternatives on grade level understanding. 2. Have students tell what they would do to make sure some wild flowers would be left to grow next year. Some answers - do not pick at all, put up fence, etc.
	2. Have children plan dialogue & construct puppets to put on a puppet show pointing out situations of wise & unwise uses.

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CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Langua

Subject Langua

Problem Orientation Con

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: Through dramatization by puppets, the children will show the long-term result of careless planning. Affective: Children will voluntarily judge that short-term gains are not really gains at all in the long run.	I. Student-Centered in class activity A. Classroom 1. Read, *Why the Bear Lost his Beautiful Tail* to the children. 2. In a discussion, point out the fact that the bear want to get something quickly & did it in a foolish way suffering a loss which coul not be replaced. 3. Have the children tell wha the bear could have done which would have been more sensible. (It should have been planned.) 4. The children can make puppets and act out the folktale.
Skills to be Learned Dramatization Discussion Audio skills	

economic gains may

erm environmental

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Conservation Grade K-1

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ough dramati- s, the ow the long- areless ldren will ge that short- not really the long run. arned	I. Student-Centered in class activity A. Classroom 1. Read, Why the Bear Lost his Beautiful Tail to the children. 2. In a discussion, point out the fact that the bear wanted to get something quickly & did it in a foolish way suffering a loss which could not be replaced. 3. Have the children tell what the bear could have done which would have been more sensible. (It should have been planned.) 4. The children can make puppets and act out the folktale.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested Lear
Publications: Story: Why the Bear Lost his Beautiful Tail	
Audio-Visual:	
Community:	

nce Materials	Continued and Additional Suggested Learning Experiences
s Beautiful	

CONCEPT: 11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Langua

Subject Prose

Problem Orientation Co

BEHAVIORAL OBJECTIVES

Cognitive: Dramatize either the story of Charlottes' Web or Smokey, the Bear.

Affective: If I left the soap in the sink & the dripping water dissolved all the soap, how could we get our hands clean?

Skills to be Learned

Discussion & analysis of story
Organization of story
Planning ideas
Motor skills

SUGGESTED LEARNING

I. Student-Centered in class activity
  A. Classroom
    1. Read the book, Charlotte's Web to the children and then have an oral discussion:
      a. Limited situation
      b. Relate Wilbur's dependenc on Charlotte
      c. Charlotte's decision
      d. Charlotte's sacrifice for her friends. (Wilbur's life depends on Charlotte' ingenuity.)
      e. Charlotte's other alternatives & effects of choice
    2. Class story: story cards.
    3. Work on shadow boxes depicting any of the parts of the above mentioned. (Parts of plot)
      a. Done in stand up figures inside a cut out cereal bo
      b. Cover the outside of box.
      c. Display with a bulletin board with explanation of scenes.
    4. This can also be dramatized (in skits, child planned) to show the plot & interaction (

l acts, duplicated

, produce significant Discipline Area Language Arts

alterations over time. Subject Prose (Fiction)

Problem Orientation Conservation Grade K

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
atize either arlottes' the Bear. I left the k & the dissolved ow could s clean? arned nalysis of f story	I. Student-Centered in class activity A. Classroom 1. Read the book, Charlotte's Web to the children and then have an oral discussion: a. Limited situation b. Relate Wilbur's dependence on Charlotte c. Charlotte's decision d. Charlotte's sacrifice for her friends. (Wilbur's life depends on Charlotte's ingenuity.) e. Charlotte's other alternatives & effects of choice 2. Class story: story cards. 3. Work on shadow boxes depicting any of the parts of the above mentioned. (Parts of plot) a. Done in stand up figures inside a cut out cereal box. b. Cover the outside of box. c. Display with a bulletin board with explanation of scenes. 4. This can also be dramatized (in skits, child planned) to show the plot & interaction (cont.)	II. Outside Resource and Community Activities

Resource and Reference Materials

Publications:
Charlotte's Web
Smokey, the Bear

Audio-Visual:
Smokey, the Bear Film

Community:

Continued and Additional Suggested Le

I. (cont.)
& reaction of characters in story.
5. Read the story, Smokey, the Bear.
a. Have oral discussion. Facts ab
Smokey, the Bear.
b. Make poster & pictures with fi
c. Watch film, Smokey, the Bear.
d. Learn the song, Smokey, the Be

Problem Focused:
Charlotte's Web - Individual's att
influences his surroundings & envir
Smokey, the Bear - Effects of care

als	Continued and Additional Suggested Learning Experiences
	I. (cont.) & reaction of characters in story. 5. Read the story, Smokey, the Bear. Play the record, too. a. Have oral discussion. Facts about the background of Smokey, the Bear. b. Make poster & pictures with fire prevention captions. c. Watch film, Smokey, the Bear. 4 1/2 min., B&W. d. Learn the song, Smokey, the Bear. Problem Focused: Charlotte's Web - Individual's attitude affects & influences his surroundings & environment. Smokey, the Bear - Effects of carelessness with fire.

C 12. Private ownership must be
O
N regarded as a stewardship and
C
E should not encroach upon or violate
P
T the individual right of others.

Discipline Area Langu

Subject Drama

Problem Orientation St

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Child will demonstrate by group & individual actions that their classmates rights must be respected. They solved problems through group consideration & action. Affective: A child will show by his aocial activities in a classroom that private ownership must be regarded as a stewardship & must not encroach upon or violate the individual right of others.	I. Student-Centered in class activity A. Classroom 1. Play acting & dramatization involving certain given situations. Skits showing: a. Two or three children in a group to take a toy & act out what may when one owns a toy & must share it. b. When there is two toys for three children. c. Two children have two pin wheels amongst a group of five. (In dramatizing, two will not share or two will share with two others and one cannot get one) A sixth child comes with knowledge how to make on & shows all how to construct them so now each can have one. 2. The teacher & class can have a discussion about the skits and the ideas they show. 3. The children can construc their own pin wheels.
Skills to be Learned Planning Oral skills Dramatization Motor skills Following directions Demonstration Sharing knowledge with others	

ownership must be
a stewardship and
encroach upon or violate
ual right of others.

Discipline Area Language Arts
Subject Dramatization
Problem Orientation Stewardship Grade K

AL OBJECTIVES

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or violate the
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. Play acting & dramatization involving certain given situations. Skits showing:
      a. Two or three children in a group to take a toy & act out what may when one owns a toy & must share it.
      b. When there is two toys for three children.
      c. Two children have two pin wheels amongst a group of five. (In dramatizing, two will not share or two will share with two others and one cannot get one) A sixth child comes with knowledge how to make one & shows all how to construct them so now each can have one.
    2. The teacher & class can have a discussion about the skits and the ideas they show.
    3. The children can construct their own pin wheels.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sug
Publications: **Audio-Visual:** Each child should have: 5 inch square of paper pin bead or cut off straw to use pencil with eraser **Community:**	

nce Materials	Continued and Additional Suggested Learning Experiences
ave: aper raw to use	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as neede

In commenting on each episode used in your class, you may wi format. Please feel free to adapt it and add more pages. Let comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

g on each episode used in your class, you may wish to duplicate this suggested
feel free to adapt it and add more pages. Let us know all your critiques and
tive and positive.

Objectives
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Learning Experiences
s:

& Community Activities

Resource & Reference Materials
suggestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENV

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts Grade 1

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338

Rob
Rob
Geo

I - C - E INSTRUCTION - CURRICULUM - ENVIRONMENT

MENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

NE AREA Language Arts Grade 1

under Title III E.S.E.A.
I-C-E
Schools in CESA's 3-8-9
n Street
y, Wisconsin 54301
2-4338

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help
of over a hundred teachers, year long meetings, a summer worksh
ecologists, this guide means realistic, developed aid for you.
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are d
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know you
   to adapt, adopt, or use. Be design, the range of suggestions
   mentation and usage are even wider. Many episodes are self-c
   others can be changed in part or developed more keenly over
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning
   plan. The reasons are simple. No guide has all the answers
   unless viewed in the context of your classroom situation. T
   give it a triple reading, check over the resources listed, m
   prime your students, and seek help. The Project personnel a
   knowledgement page stand ready to aid your efforts. Feel fre
4. The Project Resource Materials Center serves all CESA 3, 8,
   private. We will send available materials pre-paid. Call f
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school libr
   Center materials. Please offer suggestions, comments, or ad
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scrat
   suggestions on the episode pages or use the attached evaluat
   lected in late May next year and will be used in our revisio
   reactions and suggestions--negative and positive. Please not
   in the episodes may refer to specific, local community resou
   cases, individual school districts and teachers will have to
   stitutes. A list of terms pertinent to the episodes is belo
7. Ecologists and other experts have simplified the issue--surv
   Creation's beauty and complexity--often noted as the work of
   and human energy to save. A year's work by a hundred of you
   gesture. Without you, their work will crumble, and so might
   let us live to think, feel, and act in harmony with our worl

---

1. Cognitive means a measurable mental skill, ability, or pr
2. Affective refers to student attitudes, values, and feelin
3. APWI means Acceptable Performance Will Include (labels a
4. EPA - Environmental Problem Area.

PREFACE

excite students about their environment, help is ready. Thanks to the efforts
d teachers, year long meetings, a summer workshop, university consultants and
guide means realistic, developed aid for you. Please note the following ideas
ted teachers in writing and editing this guide.
supplementary in nature and the episodes are designed--at appropriate instan-
into existing, logical course content.
episode offers suggestions. Since you know your students best, you decide what
pt, or use. Be design, the range of suggestions is wide; your chances for experi-
usage are even wider. Many episodes are self-contained, others open-ended, still
changed in part or developed more keenly over a few weeks. These built-in
allow you to explore.
hat you try the episodes and suggested learning experiences but please pre-
asons are simple. No guide has all the answers and no curriculum will work
in the context of your classroom situation. Thus, before trying an episode,
ble reading, check over the resources listed, make mental and actual notes,
udents, and seek help. The Project personnel and teachers listed on the ack-
page stand ready to aid your efforts. Feel free to ask their help in pre-planning.
esource Materials Center serves all CESA 3, 8, and 9 area schools--public and
will send available materials pre-paid. Call for any help, materials, or to
432-4338.
he Project ICE Bibliography in your school library for available Resource
als. Please offer suggestions, comments, or advice--at any time--so that this
row. Let's help each other.
elf with the guide by reacting to it with scratch ideas, notes, and extended
n the episode pages or use the attached evaluation format, which will be col-
e May next year and will be used in our revisions. We sincerely want your
suggestions--negative and positive. Please note that some resources listed
es may refer to specific, local community resources or conditions. In such
dual school districts and teachers will have to adopt local or available sub-
list of terms pertinent to the episodes is below.
d other experts have simplified the issue--survival--yours, mine, our students,
auty and complexity--often noted as the work of a genius--will take our genius
rgy to save. A year's work by a hundred of your fellow teachers is a saving
hout you, their work will crumble, and so might we all--literally. Instead,
think, feel, and act in harmony with our world.

Editorial Board

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eans a measurable mental skill, ability, or process based on factual data.
efers to student attitudes, values, and feelings.
Acceptable Performance Will Include (labels a cognitive or mental performance.)
onmental Problem Area.

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he Supplementary Environmental Education Guide.

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inette

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C Energy from the sun, the basic source
O
N of all energy, is converted through
C
E plant photosynthesis into a form all
P
T living things can use for life processes.

Discipline Area

Subject

Problem Orienta

BEHAVIORAL OBJECTIVES	SUGGESTED L
Cognitive: The child will show the effects of the wind and the sun by participating in a dramatization of the fable, acting the parts of the wind and sun. The child will recall two ways the sun helps or harms us. Affective: The children will ask questions about the sun as stimulated by the teacher.	I. Student-Centered in cla activity 1. What are fables? 2. Reading the fable, "Th Sun & the Wind." 3. Discuss difference between hot sunny days an cold windy days. 4. Dramatize the fable. 5. Set up questions as: Who was the strongest? What can the sun and wind do for plants? 6. Summarizing the concept that sometimes the sun and wind help us and so times they harm us: each child do an experiment a blow balloon till it bursts, melt butter in t sun, dish of water in su to show evaporation.
Skills to be Learned Listening Promote sensory image of how sun and wind feel and sound. Vocabulary	

sun, the basic source
is converted through
hesis into a form all
an use for life processes.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Energy Use Grade 1

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
hild will of the by parti- amatiza- e, acting wind and ill recall helps or hildren ns about lated by rned image of feel and	I. Student-Centered in class activity 1. What are fables? 2. Reading the fable, "The Sun & the Wind." 3 Discuss difference between hot sunny days and cold windy days. 4. Dramatize the fable. 5. Set up questions as: Who was the strongest? What can the sun and wind do for plants? 6. Summarizing the concept that sometimes the sun and wind help us and sometimes they harm us: each child do an experiment as-blow balloon till it bursts, melt butter in the sun, dish of water in sun to show evaporation.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested Learning Expe
ublications: Fable - "Sun and the Wind" "Who Has Seen the Wind," by Rosetti "The Wind," by R. L. Stevenson. udio-Visual: Calendar Thermometer Crepe-paper streamer Electric fan Pictures Catalogs, to cut pictures from that show how we dress for different weather. Film(strip) on seasons ommunity:	

s	Continued and Additional Suggested Learning Experiences

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2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area Langua

Subject Langua

Problem Orientation Ec

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING

BEHAVIORAL OBJECTIVES

Cognitive: The students will learn to recognize some animals by name through pictures. The student will learn to recognize some birds by name through pictures. The student will write an informational article on the needs of his choice of animal & bird.

Affective: As the student participates in learning & doing, he will seek other examples of animals and how they live in their environment.

Skills to be Learned

Listening for information

Writing an informational article

Looking for a bird & naming it

SUGGESTED LEARNING

I. Student-Centered in class activity
  A. Class:
    1. Read: The Kitchen-Window Squirrel by Harold Longman
       Let above introduce:
       a. Animals of neighborhood
       b. Birds of neighborhood
    2. List wild animals (mammal of neighborhood & find pictures of adults & babie Make bulletin board, learn to recognize names.
    3. Have animal information read by teacher. Children write an informational article for one or more animals. A booklet could be made of stories.
    4. Have a class period in which each child has a chance to tell when he saw one of these animals.
    5. Discuss how many of these animals live here--why not more or less.
    6. Put up bird pictures, ha children learn to recogni them by picture. Have personal charts made & ha child check if he sees bi each day of week. (cont.

nisms interact among

ir environment,

te unit called an

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Ecosystem Grade 1

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class:
    1. Read: The Kitchen-Window Squirrel by Harold Longman. Let above introduce:
      a. Animals of neighborhood
      b. Birds of neighborhood
    2. List wild animals (mammals) of neighborhood & find pictures of adults & babies. Make bulletin board, learn to recognize names.
    3. Have animal information read by teacher. Children write an informational article for one or more animals. A booklet could be made of stories.
    4. Have a class period in which each child has a chance to tell when he saw one of these animals.
    5. Discuss how many of these animals live here--why not more or less.
    6. Put up bird pictures, have children learn to recognize them by picture. Have personal charts made & have child check if he sees bird each day of week. (cont.)

II. Outside Resource and Community Activities
  A. Outside activity
    1. Take field trips to school yard & neighboring woods to see birds.
    2. Write a letter to ask permission to visit neighbor's woods.
      a. Take a field trip & list all animal life seen.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Book: The Kitchen-Window Squirrel, by Harold Longman Audio-Visual: Community:	I. (cont.) 7. As a culminating activity, about how living organisms r Begin with a question such a a. What would happen if the other day would come out w

erials	Continued and Additional Suggested Learning Experiences
, by	I. (cont.) 7. As a culminating activity, have a discussion about how living organisms react to each other. Begin with a question such as: a. What would happen if the skunk we smelled the other day would come out while we have recess?

C 3. Environmental factors are limiting
O
N on the numbers of organisms living
C
E within their influence, thus, each
P
T environment has a carrying capacity.

Discipline Area

Subject

Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: The student will give an imaginative talk telling what happened to him as a frog, the student will find rhyming words in a poem. Affective: Each child decides if all frog eggs hatched and all frogs lived would there be room in the pond?	I. Student-Centered in class activity 1. Read & enjoy poem "Twenty Froggies" by George Cooper 2. Have children bring in frog eggs for observation. Have one aquarium with a few eggs and one aquarium overstocked with eggs. Hav children watch results. 3. Have children give talks in which they make believe they are tadpoles or littl frogs and tell what happened to himself. 4. Discuss what would happen if all the eggs hatched & the frogs lived in the ponds around school. Include food, shelter, space, enemies. 5. Make chart of the life cycle of a frog or where frogs live. 6. Learn to sing "Twenty Froggies." 7. Make a bulletin board about frogs.
Skills to be Learned Giving an imaginative talk Listening for rhyming words Making accurate observations of the developing frog eggs.	

factors are limiting

f organisms living — Discipline Area: Language Arts

luence, thus, each — Subject: Language Arts

a carrying capacity. — Problem Orientation: Population Density — Grade: 1

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
udent inative happened the rhyming child g eggs rogs lived om in the	1. Read & enjoy poem "Twenty Froggies" by George Cooper. 2. Have children bring in frog eggs for observation. Have one aquarium with a few eggs and one aquarium overstocked with eggs. Have children watch results. 3. Have children give talks in which they make believe they are tadpoles or little frogs and tell what happened to himself. 4. Discuss what would happen if all the eggs hatched & the frogs lived in the ponds around school. Include food, shelter, space, enemies. 5. Make chart of the life cycle of a frog or where frogs live. 6. Learn to sing "Twenty Froggies." 7. Make a bulletin board about frogs.	1. Have children look in library to find life cycle of frog.
ned ative yming obser- veloping		

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Poems: Twenty Froggies by George Cooper. **Audio-Visual:** Aquarium Frog eggs **Community:**	

aterials	Continued and Additional Suggested Learning Experiences
e Cooper.	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT
4. An adequate supply of pure water is essential for life.

Discipline Area Lang

Subject Lang

Problem Orientation Adec Wate

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: The learner will tell a story about going without water. The learner will list ways he uses water at school. Affective: The class will offer ways in which they use water. The list will be written on board.	I. Student-Centered in class activity 1. Show pictures of the many places in the world where water is found (ocean, lake, pond, river) 2. Show pictures of where there isn't water (deserts, tundras) 3. Make bulletin board of above pictures. 4. To see if water is essential, the children will not use any water for a given amount of time. 5. Children will list all things they were not able to do because of not being able to use water. 6. Children will tell story about a. how they felt when they couldn't use water b. why he needs water 7. The children could try to figure out a lunch menu or meal which would not use water.	II. C
Skills to be Learned Listing what could not be done if there was no water Giving a talk about the need of water Story-telling		

pure

ife.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Adequate Water Supply Grade K-1

SUGGESTED LEARNING EXPERIENCES

1

I. Student-Centered in class activity	II. Outside Resource and Community Activities
1. Show pictures of the many places in the world where water is found (ocean, lake, pond, river) 2. Show pictures of where there isn't water (deserts, tundras) 3. Make bulletin board of above pictures. 4. To see if water is essential, the children will not use any water for a given amount of time. 5. Children will list all things they were not able to do because of not being able to use water. 6. Children will tell story about a. how they felt when they couldn't use water b. why he needs water 7. The children could try to figure out a lunch menu or meal which would not use water.	

Resource and Reference Materials	Continued and Additional Suggest
Publications:	
Audio-Visual: pictures of where water is found & where water is not found	
Community:	

e Materials	Continued and Additional Suggested Learning Experiences
re	

C 5. An adequate supply of clean air is
O
N essential because most organisms — Discipline Area Language A
C
E depend on oxygen, through respiration, — Subject Language A
P
T to release the energy in their food. — Problem Orientation Clean a

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Understand what air pollution is by watching experiments. Affective: Each child will be given the opportunity to contribute to a class board list, any odor which has been brought to him by moving air.	I. Student-Centered in class activity A. Activities: 1. Airsprays 2. Fans 3. Kites 4. Balloons 5. Chimneys	II. Ou Com A. pe ou cu pc B. or ch a th
Skills to be Learned Increase acuity in observance		

e supply of clean air is
ause most organisms   Discipline Area Language Arts
gen, through respiration,   Subject Language Arts
e energy in their food.   Problem Orientation Clean air   Grade 1

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
erstand what s by watching h child will portunity to class board which has him by	I. Student-Centered in class activity A. Activities: 1. Airsprays 2. Fans 3. Kites 4. Balloons 5. Chimneys	II. Outside Resource and Community Activities A. Make windmills & pin onto pencil eraser. Take them out in air to show air current. Air moves & polluted air comes to us. B. Cover a picture frame or cardboard frame with cheese cloth. Hang it in a tree & observe the things that catch on to it.
arned y in		

Resource and Reference Materials	Continued and Additional Sugge
Publications: Who Has Seen The Wind **Audio-Visual:** Kites, balloons, paper Cheese cloth & frame Plastic bottle-cigarette **Community:**	

ce Materials	Continued and Additional Suggested Learning Experiences
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tte	

CONCEPT

6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area

Subject

Problem Orientation R

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: The student will listen to a story & show understanding by planting his seeds and comparing plant life in different areas, giving reasons why the plant life is different. Affective: Teacher makes list on chalk board. Children will place a W or S before name of resource (Apple, Banana) that has to be shipped into our area either in summer and/or winter.	I. Student-Centered in class activity 1. Read "Seeds & More Seeds" by Millicent Selsam. 2. Plant seeds & care for them. 3. Give talk in about a week's time telling why or why not the seeds grew (too much or too little water) 4. Discuss - Could parts of the world be like reasons in No. 3. 5. Make bulletin board showing swamps, deserts, good farm land, woods. 6. Show pictures of many kinds of vegetables, fruits & cereals. Choose those that grow in community. Where do others grow? Why? 7. Make a booklet of: a. Fruits growing in community & those shipped in all the time or part of the time. b. Same as (a) but use vegetables. c. Same as (a) but with flowers. 8. Have an exhibit of No. 7.
Skills to be Learned Carrying out an individual project Comparing (land areas, requirement of different plant life) Organizing a talk Classifying	

urces are not equally
r the earth or over
y affect the geographic
quality of life.

Discipline Area Language Arts
Subject Comparison & Discussion
Problem Orientation Resource Usage Grade 1

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
tudent story & g by s and ife in giving lant life er makes rd. Chil- W or S source hat has o our mmer ned individual areas, fferent k	I. Student-Centered in class activity 1. Read "Seeds & More Seeds" by Millicent Selsam. 2. Plant seeds & care for them. 3. Give talk in about a week's time telling why or why not the seeds grew (too much or too little water) 4. Discuss - Could parts of the world be like reasons in No. 3. 5. Make bulletin board showing swamps, deserts, good farm land, woods. 6. Show pictures of many kinds of vegetables, fruits, & cereals. Choose those that grow in community. Where do others grow? Why? 7. Make a booklet of: a. Fruits growing in community & those shipped in all the time or part of the time. b. Same as (a) but use vegetables. c. Same as (a) but with flowers. 8. Have an exhibit of No. 7.	II. Outside Resource and Community Activities 1. Visit schoolyard or neighborhood areas which show swamps, drainage ditches, sand hills, etc. On trip, compare what grows in each area.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Seeds & More Seeds by Millicent Selsam. Audio-Visual: Seeds - peas, garden beans & soybeans best. Containers in which to plant Pictures of swampy areas, deserts, good farm land, woods. Pictures fresh fruits, vegetables, flowers Real fruits & vegetables for a display Community:	

erials	Continued and Additional Suggested Learning Experiences
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7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Language

Subject Language

Problem Orientation Popu

BEHAVIORAL OBJECTIVES

Cognitive: The student will help to form a list of objectives for a trip.

Affective: Children will voluntarily participate in a discussion on a teacher made question. Example: Why don't we leave the animals in the woods where they are happy instead of penning them up in parks or zoos? After they have had a poll of hands to show who wants to pen the animals, have discussion on the reasons they chose.

Skills to be Learned

Write letters
List necessary things to be accomplished
Writing stories

SUGGESTED LEARNING EX

I. Student-Centered in class activity
  A. Classroom activities
    1. Have children make believe he is one of the animals he knows and tell:
      a. Where he lives
      b. Where he wishes he could live
      c. Why he is there
      d. How he helps man or other animals
    2. Make a bulletin board using the idea of the above activity.
    3. Make believe some of the children are various animals in pens & others are human visitors, what would the animals talk about?

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sure time have a great
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Discipline Area Language Arts
Subject Language Arts
Problem Orientation Population Grade K-1

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom activities
    1. Have children make believe he is one of the animals he knows and tell:
      a. Where he lives
      b. Where he wishes he could live
      c. Why he is there
      d. How he helps man or other animals
    2. Make a bulletin board using the idea of the above activity.
    3. Make believe some of the children are various animals in pens & others are human visitors, what would the animals talk about?

II. Outside Resource and Community Activities
  A. Outside activities
    1. Do necessary preparing for a bus field trip.
      a. Letters
      b. Phone calls
      c. Money needed
      d. List of what is to be observed or accomplished on the trip
      e. Discussion of how one should behave
    2. After the trip to a recreational area, the teacher will lead a discussion using all or some of these questions:
      a. Why did we go to the trout ranch?
      b. Why do other people go?
      c. When is the trout ranch open to the public? Why?
      d. Why do people from far away come here?
      e. Where do these people come from?
      f. Why do we like these people to come here?
      g. Did these people always come from (cont.)

Resource and Reference Materials

Publications:

Audio-Visual:
Pictures of what is done in recreational areas

Community:
Resource unit such as:
- Park
- Zoo
- Trout ranch
- Swimming area
- Water skiing area
- Snowmobiling area
- Fishing ponds
- Boating area

Continued and Additional Suggested Learni

II. (cont.)
Green Bay, Milwaukee, etc.? Why a
now?
h. Do these people bring something
i. Do these people bring something
(Pollution)
j. What else happens because these
(Roads, materials for building, f
3. Write a story about their trip.

erials	Continued and Additional Suggested Learning Experiences
n	II. (cont.) Green Bay, Milwaukee, etc.? Why are they coming now? h. Do these people bring something we need? (Money) i. Do these people bring something we don't need? (Pollution) j. What else happens because these people come north? (Roads, materials for building, food) 3. Write a story about their trip.

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8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area Language

Subject Language

Problem Orientation Land Use
Attitude

BEHAVIORAL OBJECTIVES

Cognitive: The student will write a letter asking permission and will choose one of the following to tell what happened on the trip: write, discuss, or list things.

Affective: How will you help to have a pretty place as we have one today?

Skills to be Learned

Letter writing
Making lists of necessary things to be done
Identifying specimens
Writing down one's thoughts on a specified topic
Writing a story in sequence

SUGGESTED LEARNING EXPERI

I. Student-Centered in class activity
1. Read "The Clean Brook" by Margaret Bartlett.
2. After field trip: Write or discuss about "I Liked The Field Trip" or "I Did Not Like The Field Trip."
3. Write or discuss: What Can I Do To Enjoy The Out-of doors More Often?
   a. learn more about it
   b. go to the woods more often
   c. preserve it
   d. don't pollute it
4. Identify specimens taken on field trip.
5. Write story of what was done on trip in sequential order.

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Discipline Area Language Arts
Subject Language Arts
Problem Orientation Land Use Attitudes Grade 1

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Read "The Clean Brook" by Margaret Bartlett.
2. After field trip: Write or discuss about "I Liked The Field Trip" or "I Did Not Like The Field Trip."
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  b. go to the woods more often
  c. preserve it
  d. don't pollute it
4. Identify specimens taken on field trip.
5. Write story of what was done on trip in sequential order.

II. Outside Resource and Community Activities
1. Field trip
  a. Write for permission to use private roadway, privately owned area, & permission from parent to go.
  b. Collect jars & boxes for specimens.
  c. Discuss behavior on trip
  d. Teacher point out on trip:
    1) plant life
    2) water life
    3) quietness
    4) what noise does to area
    5) have all sit around & discuss what is seen
    6) Have children, with paper & crayons, draw something in area
    7) Eat lunch and proceed to classroom

Resource and Reference Materials	Continued and Additional Sugge
Publications: Book: The Clean Brook by Margaret Bartlett. Audio-Visual: Community: any outdoor area which children may enjoy: a. wooded area b. lake c. river d. pond	

e Materials	Continued and Additional Suggested Learning Experiences
rgaret	
children	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT

8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area La

Subject La
At

Problem Orientation Wa

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The child will observe what happens to the resource snow under given circumstances by taking part in experiments that cause this change. a. melting snow b. Spring rain Affective: Is Water best standing still or moving?	I. Student-Centered in class activity 1. Demonstration of what happens to snow. 2. Activities: Two pans in room: a. One filled with snow 1) Evaporates b. Soil covered with snow 1) earth absorbs moisture c. Keep chart of which melts first - time it takes - what happens 3. As snow melts in spring, water finds its way to our creeks & rivers a. box filled with dirt. soil piled high on one side. Pour water on high side to show how water finds its way to lower levels (creeks). 4. Flooding caused by swelling of rivers: a. Sand box made into level land, rivers, valleys, & high elevations. 5. People lose homes from floods. a. Make milk carton houses (for city) & trees for villages. Pour water (Cont.)	II.
Skills to be Learned Make trips to nearby creeks and rivers Observation of experiment Demonstrate a simple experiment Listen for information Oral reports on observations		

economic, social, and
tors determine status
es and attitudes
vironment.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Attitudes Toward Water Grade 1

OBJECTIVES

child
t happens
snow under
nces by
xperiments
change.

Water best
r moving?

rned
nearby creeks

experiment
imple experi-

rmation
observations

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Demonstration of what happens to snow.
2. Activities: Two pans in room:
   a. One filled with snow
      1) Evaporates
   b. Soil covered with snow
      1) earth absorbs moisture
   c. Keep chart of which melts first - time it takes - what happens
3. As snow melts in spring, water finds its way to our creeks & rivers
   a. box filled with dirt. soil piled high on one side. Pour water on high side to show how water finds its way to lower levels (creeks).
4. Flooding caused by swelling of rivers:
   a. Sand box made into level land, rivers, valleys, & high elevations.
5. People lose homes from floods.
   a. Make milk carton houses (for city) & trees for villages. Pour water (Cont.)

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggest
Publications: News Pilot (Scholastic) Audio-Visual: pans with soil & water sand box newspaper pictures posters - the inspring beauty of our natural environment Film - "Winter Snows" Community:	I.(Cont.) swiftly into the rivers. W to milk carton houses and b. Make two trees - cut one one down from top and slip 6. Draw pictures in sequence to become water.

aterials	Continued and Additional Suggested Learning Experiences
	I.(Cont.) swiftly into the rivers. Watch what happens to milk carton houses and trees. b. Make two trees - cut one up from bottom, one down from top and slip together to stand. 6. Draw pictures in sequence of how snow melts to to become water.
auty of	

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Lang

Subject Lang

Problem Orientation C

BEHAVIORAL OBJECTIVES

Cognitive: Through dramatization by puppets, the children will show the long-term result of careless planning.

Affective: Children will voluntarily judge that short-term gains are not really gains at all in the long run.

Skills to be Learned

Dramatization
Discussion
Audio skills

SUGGESTED LEARNING

I. Student-Centered in class activity
  A. Classroom
    1. Read, Why the Bear Lost his Beautiful Tail to the children.
    2. In a discussion, point o the fact that the bear wa to get something quickly did it in a foolish way suffering a loss which co not be replaced.
    3. Have the children tell w the bear could have done which would have been mor sensible. (It should have been planned.)
    4. The children can make puppets and act out the folktale.

ESEA Title III - 59-70-0135-1 Project I-C-E

erm economic gains may

g-term environmental

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Conservation Grade K-1

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
hrough dramati- pets, the show the long- f careless hildren will udge that short- e not really in the long run.	I. Student-Centered in class activity A. Classroom 1. Read, Why the Bear Lost his Beautiful Tail to the children. 2. In a discussion, point out the fact that the bear wanted to get something quickly & did it in a foolish way suffering a loss which could not be replaced. 3. Have the children tell what the bear could have done which would have been more sensible. (It should have been planned.) 4. The children can make puppets and act out the folktale.	II. Outside Resource and Community Activities
Learned n		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Story: Why the Bear Lost his Beautiful Tail Audio-Visual: Community:	

e Materials	Continued and Additional Suggested Learning Experiences
Beautiful	

ESEA Title III - 59-70-0135-1 Project I-C-E

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11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language
Subject Languag
Problem Orientation Litt

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: During a week's period the children will make a graph & put checks behind their names as to how many pieces of litter they have picked up. Give a short oral report on the effect of their own private clean-up campaign. Affective: On the way to & from school, the child will watch for litter. This will be reported on the next day with ideas of what should have been done with the litter.	I. Student-Centered in class activity	II. Out Comm A. O 1 2 3 4
Skills to be Learned Observing Speaking Vocabulary enrichment Litter - pollution & street cleaners		

ts, duplicated

oduce significant Discipline Area Language Arts

erations over time. Subject Language Arts

Problem Orientation Littering Grade 1

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
a week's will checks as to litter . Give on the private way to child er. This the of een er.	I. Student-Centered in class activity	II. Outside Resource and Community Activities A. Outside classroom 1. Yard trip for children to see the articles that have been dropped by careless people. 2. Field trip to a park or picnic ground to arouse feelings in children about environment used by the public. 3. Reports after they return to school. 4. Drawings of the devastation that was caused at park or picnic grounds.
ed ent n &		

Resource and Reference Materials	Continued and Additional Suggested Learni
Publications: Smokey, the Bear, story & song Keep Our World Clean, song sheet available at CESA #9 Office This Land is Your Land, song sheet Audio-Visual: TV - radio, newspaper articles to report on Conservation film Community: Neighborhood trips Resource person from Conservation Dept. Pick up things on their way to school as their contribution to "Clean Up"	

rials	Continued and Additional Suggested Learning Experiences
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sheet	
es	
ation	
to n to	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 11. Individaul acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language

Subject Language Environm

Problem Orientation Cause

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: The student will learn how to properly use a telephone. The student will also discuss how our land should be treated & compare the past, present & future. Affective: Using pictures of land areas which have been harmed or left unharmed, each child will explain what caused the good or bad situation.	I. Student-Centered in class activity A. Classroom 1. Discuss telephone etiquette. 2. Place a telephone call to get permission to walk on neighbor's field.	II. C A
Skills to be Learned Learning to make a polite telephone call Time lapses Speech skills: Introduction Clarity Closing		

acts, duplicated

produce significant

alterations over time.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Environmental Change Caused by Man Grade 1

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
student will operly use a student will our land ed & compare nt & future. ng pictures hich have left unharmed, explain what or bad	I. Student-Centered in class activity A. Classroom 1. Discuss telephone etiquette. 2. Place a telephone call to get permission to walk on neighbor's field.	II. Outside Resource and Community Activities A. Out of class 1. Visit a farm field. 2. Sit down at field's edge & talk about: a. What was this like when your grandfather was a little boy or when Indians were here? b. What has been done to land since then? c. Why has this been done? d. What will this land be like in 10 or 50 years? e. How can it be made into poor land? f. How can it be kept a good land? g. Why do we want it to be kept as a good crop land? 3. Have children bring in pictures of land areas which have been harmed by man & land which has been kept good by man. 4. Have children give oral reports on what they observed on their trip.
arned ke a polite l		

Resource and Reference Materials	Continued and Additional Suggested Lear
Publications:	
Audio-Visual:	
Community:	

aterials	Continued and Additional Suggested Learning Experiences

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Language Ar

Subject Dramatizati

Problem Orientation Publi Propert

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: The learner will dramatize either how books should or should not be taken care of, and will list school property which should be cared for. Affective: The student will adopt better ways for caring for school property.	I. Student-Centered in class activity 1. The children will look at the trees through the windows and then the teacher will list ways in which they are used stressing paper making which becomes their textbooks. 2. Show filmstrip, How to Take Care of Books. 3. Have children dramatize the correct or incorrect way to handle books. 4. Discuss why school books should be cared for 5. From discussion in number four, list other school property which should be cared for; children may want to tell how to care for each article listed. 6. Discuss how our taking care of property now will help our future. (Include with this, that if we mar our books, will the first graders (cont.)	II. Ou Comm
Skills to be Learned Dramatizing how books should or should not be used. Learning to take turns in discussions.		

ownership must be

stewardship and

ncroach upon or violate

l right of others.

Discipline Area Language Arts

Subject Dramatization

Problem Orientation Public Property

Grade 1

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
e learner either how r should not of, and will operty which d for. e student ter ways school	I. Student-Centered in class activity 1. The children will look at the trees through the windows and then the teacher will list ways in which they are used stressing paper making which becomes their textbooks. 2. Show filmstrip, How to Take Care of Books. 3. Have children dramatize the correct or incorrect way to handle books. 4. Discuss why school books should be cared for 5. From discussion in number four, list other school property which should be cared for; children may want to tell how to care for each article listed. 6. Discuss how our taking care of property now will help our future. (Include with this, that if we mar our books, will the first graders (cont.)	II. Outside Resource and Community Activities
earned ow books ould not ake turns ns.		

Resource and Reference Materials	Continued and Additional Suggeste
Publications:	I. (Cont) coming next year enjoy readin 7.If children are interested, di other things (parks, roads) f pay taxes. 8.Some children may want to tel places where the public goes, by taxes.
Audio-Visual: How to Take Care of Books, filmstrip	
Community:	

rence Materials	Continued and Additional Suggested Learning Experiences
	I. (Cont) coming next year enjoy reading as much as we have? 7.If children are interested, discuss where we use other things (parks, roads) for which our parents pay taxes. 8.Some children may want to tell about actions in places where the public goes, but are not paid for by taxes.
f Books,	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish to format. Please feel free to adapt it and add more pages. Let us kn comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

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and positive.

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Project I - C - E INSTRUCTION - CURRICULUM - ENVIRON

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts Grade 2

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
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George H

INSTRUCTION - CURRICULUM - ENVIRONMENT

FOR ENVIRONMENTAL EDUCATION

ge Arts Grade 2

I E.S.E.A.

's 3-8-9

301

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help is
of over a hundred teachers, year long meetings, a summer workshop,
ecologists, this guide means realistic, developed aid for you. Ple
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are desi
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your st
   to adapt, adopt, or use. By design, the range of suggestions is
   mentation and usage are even wider. Many episodes are self-cont
   others can be changed in part or developed more keenly over a f
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning ex
   plan. The reasons are simple. No guide has all the answers and
   unless viewed in the context of your classroom situation. Thus,
   give it a triple reading, check over the resources listed, make
   prime your students, and seek help. The Project personnel and t
   nowledgement page stand ready to aid your efforts. Feel free to
4. The Project Resource Materials Center serves all CESA 3, 8, and
   private. We will send available materials pre-paid. Call for an
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library
   Center materials. Please offer suggestions, comments, or advice
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch
   suggestions on the episode pages or use the attached evaluation
   lected in late May next year and will be used in our revisions.
   reactions and suggestions--negative and positive. Please note t
   in the episodes may refer to specific, local community resource
   cases, individual school districts and teachers will have to ad
   stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--surviva
   Creation's beauty and complexity--often noted as the work of a
   and human energy to save. A year's work by a hundred of your fe
   gesture. Without you, their work will crumble, and so might we
   let us live to think, feel, and act in harmony with our world.

Edito

1. Cognitive means a measurable mental skill, ability, or proce
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cog
4. EPA - Environmental Problem Area

PREFACE

te students about their environment, help is ready. Thanks to the efforts
chers, year long meetings, a summer workshop, university consultants and
e means realistic, developed aid for you. Please note the following ideas
eachers in writing and editing this guide.
lementary in nature and the episodes are designed--at appropriate instan-
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are simple. No guide has all the answers and no curriculum will work
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eading, check over the resources listed, make mental and actual notes,
s, and seek help. The Project personnel and teachers listed on the ack-
stand ready to aid your efforts. Feel free to ask their help in pre-planning.
ce Materials Center serves all CESA 3, 8, and 9 area schools--public and
end available materials pre-paid. Call for any help, materials, or to
338.
oject ICE Bibliography in your school library for available Resource
Please offer suggestions, comments, or advice--at any time--so that this
Let's help each other.
ith the guide by reacting to it with scratch ideas, notes, and extended
episode pages or use the attached evaluation format, which will be col-
next year and will be used in our revisions. We sincerely want your
estions--negative and positive. Please note that some resources listed
y refer to specific, local community resources or conditions. In such
school districts and teachers will have to adopt local or available sub-
f terms pertinent to the episodes is below.
er experts have simplified the issue--survival--yours, mine, our students,
and complexity--often noted as the work of a genius--will take our genius
o save. A year's work by a hundred of your fellow teachers is a saving
ou, their work will crumble, and so might we all--literally. Instead,
nk, feel, and act in harmony with our world.

Editorial Board

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a measurable mental skill, ability, or process based on factual data.
s to student attitudes, values, and feelings.
ptable Performance Will Include (labels a cognitive or mental performance.)
ntal Problem Area

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CESA #8

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John Hussey, Green Bay
Sister Barbara, St. Bernard

Robert Cook, UWGB
Dennis Bryan, UWGB

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1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area La

Subject La

Problem Orientation En

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The class will cut their sunflower into sections as to roots, blossom, leaves, & stem. Mix these up. Put back in order and label parts. Affective: The student advocates that this is a concrete example of the use of the sun's energy. Skills to be Learned Construction of sections of a plant Reconstruct plant in correct order Critical thinking	I. Student-Centered in class activity 1. Discussion of a sunflower using a picture or the flower. 2. Construct sunflower (blossom, roots, leaves, stem) 3. How do they think sunflower got its name. 4. Tell what the sun's job was in growing this plant. 5. Tell what would have happened if it had been without sun. 6. Tell values of sunflower (bird food, aesthetic, snacks)	II.

the sun, the basic source
is converted through
thesis into a form all
an use for life processes.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Energy use Grade 2

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
lass nflower to roots, & stem. back l parts. tudent is is e of the energy.	1. Discussion of a sunflower using a picture or the flower. 2. Construct sunflower (blossom, roots, leaves, stem) 3. How do they think sunflower got its name. 4. Tell what the sun's job was in growing this plant. 5. Tell what would have happened if it had been without sun. 6. Tell values of sunflower (bird food, aesthetic, snacks)	
ned sections t in g		

Resource and Reference Materials	Continued and Additional
Publications: **Audio-Visual**: Sunflower or a picture of one. **Community**:	

ce Materials	Continued and Additional Suggested Learning Experiences
e	

CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area Langu

Subject Langu

Problem Orientation F

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The child will explain the difference between frogs and toads. The child will orally describe the place where we find frog eggs. Affective: The child will choose which they would rather be-a frog or toad. Ex. - Frog-I like to swim. Toad- I like insects.	I. Student-Centered in class activity A. Read: 1. Frog and Toad are Friends 2. The Letter 3. Olly's Polliwogs B. Use above to discuss "life cycle". C. Discuss frog & toad activities: 1. How and what they eat. 2. How they swim. D. Discuss how frogs & toads change. E. How they fit into balance of nature. 1. Eat bugs, etc. 2. Food for humans, and also other small animals. F. Identify: 1. Describe changes & relate information they have learned to the kindergarten.	II.
Skills to be Learned Record and sketch changes in egg appearances Make booklets about frogs Writing an informational article about frogs. Show & read pictures & stories to the kindergarten Find rhyming words		

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environment,
unit called an

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Ecosystem Grade 2

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Read:
    1. Frog and Toad are Friends
    2. The Letter
    3. Olly's Polliwogs
  B. Use above to discuss "life cycle".
  C. Discuss frog & toad activities:
    1. How and what they eat.
    2. How they swim.
  D. Discuss how frogs & toads change.
  E. How they fit into balance of nature.
    1. Eat bugs, etc.
    2. Food for humans, and also other small animals.
  F. Identify:
    1. Describe changes & relate information they have learned to the kindergarten.

II. Outside Resource and Community Activities
  A. The children will go to a nearby pond, bait store, or hatchery to obtain frog & toad eggs & observe them each day for changes using magnifying glass.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Books: Frog and Toad are Friends The Letter Olly's Polliwog All by Arnold Lobil Audio-Visual: Frog eggs in glass jar Magnifying glass Glass jar for polliwogs Folk song, Froggie Went A Courting Community:	

ials	Continued and Additional Suggested Learning Experiences
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2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area La

Subject La

Problem Orientation Ec

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Children will observe actual rabbits & realize need for being very quiet in observing. Children will use library for stories both factual and fanciful. Children may pretend to be a rabbit (Where will he look for food, shelter, protection from enemies.) **Affective**: Each child evaluates for himself the good and bad traits of a rabbit.	I. Student-Centered in class activity 1. Poem "The Rabbit" 2. Pretend that child is a rabbit: a. Where build his home? b. What are his natural enemies? 1. Man - hunting 2. Dogs - hunting 3. Foxes & hawks c. How can rabbit protect himself? 1. Color blends 2. Natural protection by snow 3. Panel discussion: a. Rabbits are nuisance and it is all right to set traps & hunt them. b. Rabbits enrich our lives & the damage done to trees and shrubs could have been eliminated. 1. Class will decide which presentation is best presented - pro and con.	II.
Skills to be Learned Evaluate ways in which the situation can be controlled a. Traps Provide other source of food Protection of trees & shrubs a. By repellent b. Covering trunks & branches		

ganisms interact among

heir environment,

cate unit called

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Ecosystem Grade 2

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
en will bits & eing very . Chil- ary for al and may bbit k for tection hild elf raits ed which be rce of es & &	I. Student-Centered in class activity 1. Poem "The Rabbit" 2. Pretend that child is a rabbit: a. Where build his home? b. What are his natural enemies? 1. Man - hunting 2. Dogs - hunting 3. Foxes & hawks c. How can rabbit protect himself? 1. Color blends 2. Natural protection by snow 3. Panel discussion: a. Rabbits are nuisance and it is all right to set traps & hunt them. b. Rabbits enrich our lives & the damage done to trees and shrubs could have been eliminated. 1. Class will decide which presentation is best presented - pro and con.	II. Outside Resource and Community Activities

Resource and Reference Materials

Publications:

Time for Poetry - A Teacher's Anthology by May Hill Arbuthnot.
"The Rabbit" by Elizabeth Madox Roberts, p. 96.

Audio-Visual:

Community:

Continued and Additional Suggest

The Rabbit

When they said the time to hi
I hid back under a thick grap

And while I was still for the
A little gray thing came out

He hopped his way through the
And sat down close by a cabba

He sat down close where I co
And his big still eyes looke

His big eyes bursting out of
And I looked back very hard

From "Under the Tree

Elizabeth Madox

e Materials	Continued and Additional Suggested Learning Experiences
cher's Arbuthnot. beth	The Rabbit When they said the time to hide was mine, I hid back under a thick grapevine. And while I was still for the time to pass, A little gray thing came out of the grass. He hopped his way through the melon bed, And sat down close by a cabbage head. He sat down close where I could see, And his big still eyes looked hard at me. His big eyes bursting out of the rim, And I looked back very hard at him. From "Under the Tree" by Elizabeth Madox Roberts

CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area Lang

Subject Lang

Problem Orientation Ecos

BEHAVIORAL OBJECTIVES

Cognitive: Children will listen for ways to identify the presence of woodpeckers. Children will learn to identify kinds of woodpeckers and observe where they build nests.

Affective: Old, rotten trees, posts, etc. provide food for woodpeckers and provide places for nests; when we destroy these natural situations, we are destroying their environment. How would we feel if our home was destroyed.

Skills to be Learned

Listening for tapping
Use of field glasses for identification
Recognize local -
  a. Red-headed
  b. Hairy & downy
Compare & contrast other similar habits

SUGGESTED LEARNING EX

I. Student-Centered in class activity

1. Poem: "The Woodpecker"
2. Collect pictures - mural with environment added.
3. Draw pictures & write story about woodpecker observed.
4. Discussion:
   Are woodpeckers necessary?
   What happens when all rotten & decayed positions of trees are removed?
     Nesting places gone
     Food supply limited
   Are artificial methods possible to attract woodpeckers?

II. C
Co

rganisms interact among

their environment, Discipline Area Language Arts

icate unit called Subject Language Arts

Problem Orientation Ecosystem Grade 2

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ren will o identify woodpeckers. arn to iden- odpeckers e they build rotten . provide kers and or nests; hese ns, we are environ- we feel ies-	I. Student-Centered in class activity 1. Poem: "The Woodpecker" 2. Collect pictures - mural with environment added. 3. Draw pictures & write story about woodpecker observed. 4. Discussion: Are woodpeckers necessary? What happens when all rotten & decayed positions of trees are removed? Nesting places gone Food supply limited Are artificial methods possible to attract woodpeckers?	II. Outside Resource and Community Activities
rned apping asses for - ny ast other		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Time for Poetry - A Teacher's Anthology, "The Woodpecker," p. 84 by Elizabeth Madox Roberts. Audio-Visual: Taped woodpecker sounds Stuffed specimens from local museum, etc. Community:	The Woodpecker The woodpecker pecked out a littl And made him a house in the telep One day when I watched he poked c And he had on a hood and a colla When the streams of rain pour out And the sparkles of lightning go And the big, big wheels of thunde He can snuggle back in the teleph From "Under the Tr Elizabeth Mad

ials	Continued and Additional Suggested Learning Experiences
	The Woodpecker The woodpecker pecked out a little round hole And made him a house in the telephone pole One day when I watched he poked out his head, And he had on a hood and a collar of red. When the streams of rain pour out of the sky, And the sparkles of lightning go flashing by, And the big, big wheels of thunder roll, He can snuggle back in the telephone pole. From "Under the Tree" by Elizabeth Madox Roberts

ESEA Title III - 59-70-0135-1 Project I-C-E

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3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Student will, using 2 cans, compare space used by used cans. Observe flattened & unflattened cans and give oral report on observation. Affective: Student will observe that folded cans will take up less space; out of clutter, perhaps, cans can be recycled, thus, reusing metals.	I. Student-Centered in class activity 1.
Skills to be Learned Observation and comparison Chart for comparison Show space used by folded & unfolded cans. Speech skill/reporting	

ental factors are limiting

ers of organisms living — Discipline Area: Language Arts

r influence, thus, each — Subject: Language Arts

has a carrying capacity. — Problem Orientation: Carrying Capacity — Grade: 2

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES I. Student-Centered in class activity	 II. Outside Resource and Community Activities
tudent will, compare space cans. Observe nflattened oral report n. tudent will folded cans less space; r, perhaps, ecycled, thus, s.	1.	1. Gather opened, used cans. Sort, Remove paper labeling, wash out can, remove remaining end, & flatten can. 2. Compare amount of space used by original collection of cans to amount used by flattened cans. 3. If possible, turn in cans for re-use. 4. Chart and compare space used.
Learned and compa- mparison sed by folded ns. /reporting		

Resource and Reference Materials	Continued and Additional Suggested Learn
Publications: **Audio-Visual:** **Community:** Sanitary Dept. Engineer Companies - Local & national using this procedure -their pamphlets, booklets, may be available. Contact Public Relations Dept. a. American Can Corp. b. National Can c. Continental Can	

erials	Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area Lan

Subject Lan

Problem Orientation Eff on

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: Children will describe the things found in polluted water using a word list. **Affective**: Children feel flustered due to pollution. They will help by attempting to corr-ct the situations.	I. Student-Centered in class activity 1. Teacher & children collect pictures of fish - cut out: a. healthy fish as fish for dinner b. dying fish - pleasant & unpleasant 2. Put on chart. 3. Children give reasons for healthy & unhealthy fish; reasons could be pollution, debris, soap suds, etc. 4. Write ideas of the feelings of a fish in one of the two groups.	II.
Skills to be Learned Making distinctions Writing a word list Chart making		

upply of pure

al for life.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Effects of pollution on fish Grade 2

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
en will s found using a en feel ollution. attemp- e situ-	I. Student-Centered in class activity 1. Teacher & children collect pictures of fish - cut out: a. healthy fish as fish for dinner b. dying fish - pleasant & unpleasant 2. Put on chart. 3. Children give reasons for healthy & unhealthy fish; reasons could be pollution, debris, soap suds, etc. 4. Write ideas of the feelings of a fish in one of the two groups.	II. Outside Resource and Community Activities
ed ons ist		

Resource and Reference Materials	Continued and Additional Suggested
Publications: **Audio-Visual:** **Community:**	

rials	Continued and Additional Suggested Learning Experiences

C 5. An adequate supply of clean air is
O
N essential because most organisms Discipline Area Language A
C
E depend on oxygen, through respiration, Subject Language A
P
T to release the energy in their food. Problem Orientation Clean

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Children will be able to name 3 pleasant & 3 unpleasant odors. Affective: The teacher will put words or phrases in pairs, the child will reject the pairs of words which could be harmful by circling the pairs showing non-harmful odors. Ex. - Candy, bananas Gas, smoke Pumpkin pie, gasoline	I. Student-Centered in class activity A. Class 1. Discuss with children why we can smell the hot-lunch. 2. List odors which they like. 3. List odors they dislike. 4. Smell odors such as, smoke, onions, perfume, etc. 5. Discuss how odors can be harmful to us.	II.
Skills to be Learned Listing Discussing Making judgments		

ESEA Title III - 59-70-0135-1 Project I-C-E

pply of clean air is
most organisms Discipline Area Language Arts
through respiration, Subject Language Arts
ergy in their food. Problem Orientation Clean Air Grade 2

CTIVES	SUGGESTED LEARNING EXPERIENCES	
n will leasant s. cher hrases will words ful rs odors. s gasoline d	I. Student-Centered in class activity A. Class 1. Discuss with children why we can smell the hot-lunch. 2. List odors which they like. 3. List odors they dislike. 4. Smell odors such as, smoke, onions, perfume, etc. 5. Discuss how odors can be harmful to us.	II. Outside Resource and Community Activities A. Outside activity 1. Children will bring materials from home and community for a smelling party. 2. Bring in pictures of polluted air. 3. Bring in articles to smell, half of the room can bring in nice odors & the others, the bad odors.

Resource and Reference Materials	Continued and Additional Suggeste
Publications:	
Audio-Visual:	
Community:	

rials	Continued and Additional Suggested Learning Experiences

C 6. Natural resources are not equally
O
N distributed over the earth or over Discipline Area La
C
E time and greatly affect the geographic Subject La
P
T conditions and quality of life. Problem Orientation Res

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: To construct a picture story showing at least 3 environmental resources of the far North or that of our region. Affective: The children will respond to the situation: Eskimos have many days of darkness. Wouldn't it be a good idea to take electric light bulbs, hot plates, and electric heaters there & sell them to the Eskimos?	I. Student-Centered in class activity 1. Teacher reads a story about Eskimo life. 2. Teacher & children discuss how the life of Eskimos is similar to & different than ours. Include: food possessions natural resources 3. The children will draw conclusions (teacher will write on board) which tell the effects on each groups life because of the quantity of water, snow, trees, growing weather. 4.Divide the class into 2 or more groups & have each group draw a picture showing the natural resources of the area. 5. The children could make charts comparing clothes, food, animals of the two areas.	II.
Skills to be Learned To compare difference in: food weather possessions, etc. Show a specific idea on a picture		

es are not equally

he earth or over Discipline Area Language Arts

ffect the geographic Subject Language Arts

lity of life. Problem Orientation Resource Usage Grade 2

CTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Teacher reads a story about Eskimo life.
2. Teacher & children discuss how the life of Eskimos is similar to & different than ours. Include:
   - food
   - possessions
   - natural resources
3. The children will draw conclusions (teacher will write on board) which tell the effects on each groups life because of the quantity of water, snow, trees, growing weather.
4. Divide the class into 2 or more groups & have each group draw a picture showing the natural resources of the area.
5. The children could make charts comparing clothes, food, animals of the two areas.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested
ublications:	
Audio-Visual:	
ommunity:	

aterials	Continued and Additional Suggested Learning Experiences

CONCEPT 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Languag

Subject Languag

Problem Orientation Tra

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: A movie will be constructed by the class which shows the sequence of land transportation & how it caused change in land use. Affective: The teacher will provide a list of modes of transportation to be rated in groups according to the greatest effects on land use. Example: Wagon 3 Airplanes 3 Walking 4 Jets 2 Railroad 2 Horses 4 Jets 1 Cars 1	I. Student-Centered in class activity A. Classroom 1. The children will form groups & make a movie showing the sequence of land transportation & changes needed for each.
Skills to be Learned Sequential order Listing	

facilitating transportation,

s, population growth, Discipline Area Language Arts

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CTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. The children will form groups & make a movie showing the sequence of land transportation & changes needed for each.

II. Outside Resource and Community Activities
  A. Projects
    1. The children & teacher will go for a walk & note the various ways of land transportation.
    2. When they get back to the classroom, a composite list of ways of transportation will be made:
      a. Ways he observed on walk
      b. Other ways
    3. Discussion will follow:
      a. Modes of travel in sequencial order.
      b. What had to be done to our land when each new way was discovered?
      c. Why were more ways of transportation needed?

Resource and Reference Materials	Continued and Additional Suggest
Publications:	
Audio-Visual:	
Community:	

e Materials	Continued and Additional Suggested Learning Experiences

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT	8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	
	Discipline Area	Langua
	Subject	Langua
	Problem Orientation	Pollut

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Student will observe for one day: (taking notes) signs of pollution in the air and in the environment. Affective: What things do I do that cause pollution?	I. Student-Centered in class activity 1. Make notes to look for following things: a. Air pollution: 1) chimneys 2) cars, trucks b. Scenic pollution 1) garbage 2) junking old cars c. Noise pollution 1) home 2) school 2. Do we need noise? How much can be tolerated? a. small children b. school children c. adults, older brothers and sisters d. parents e. grandparents 3. Discussion - how to cope with each individual's particular problem.	II. Ou Com
Skills to be Learned Observation of positive and negative factors Taking notes of observation Posters		

nomic, social, and

s determine status

and attitudes

onment.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Pollution Grade 2

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
t will y: ns of ir and . hings	I. Student-Centered in class activity 1. Make notes to look for following things: a. Air pollution: 1) chimneys 2) cars, trucks b. Scenic pollution 1) garbage 2) junking old cars c. Noise pollution 1) home 2) school	II. Outside Resource and Community Activities
ed sitive rs bservation	2. Do we need noise? How much can be tolerated? a. small children b. school children c. adults, older brothers and sisters d. parents e. grandparents 3. Discussion - how to cope with each individual's particular problem.	

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: Audio-Visual: newspaper & magazine pictures (for discussion) cameras Community: Contact TV & radio stations for coverage of school project Sanitation Dept. Water Dept. City/County officials	

terials	Continued and Additional Suggested Learning Experiences
res	
s for t	

CONCEPT

9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area

Subject

Problem Orienta

BEHAVIORAL OBJECTIVES

Cognitive: Children will select some specific area to evaluate over a period of time. Each can decide on area to be observed. Seasons can change aspect of environment.

Affective: Given a picture to observe, child suggests what he would do to improve site.

Skills to be Learned

Watching for specific areas to concentrate on
Compare area-Earth's scars from road constructions, abandoned cars & machinery covered with snow, spring shows up pollution
Note taking
Story writing

SUGGESTED I

I. Student-Centered in clas
activity
 A. Classroom activity
  1. Children will decid
   what area they plan
   observe.
  2. Each group reports
   area of choice.
  3. They will also deci
   at what intervals th
   will make observatio
   time of day, morning
   night.
  4. Aesthetic evaluatio
   a. What is objectio
    able? Why?
   b. What is good? Wh
  5. Write stories abou
   observations.
   a. Spelling list o
    words children
    suggest to enabl
    them to compose
   b. Compare notes f
    first observatio
    last observed an
    compare.
    1. Has spelling
    2. Good sentence
  6. Children may read
   to classmates.

the ability to manage,
and change his
.

Discipline Area Language Arts

Subject Language Arts

Problem Orientation Appreciation & Observation Grade 2

RAL OBJECTIVES
Children will
specific area
over a period
n can decide
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change aspect
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Given a
bserve, child
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Learned
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a-Earth's scars
constructions,
cars & machinery
th snow, spring
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom activity
    1. Children will decide what area they plan to observe.
    2. Each group reports on area of choice.
    3. They will also decide at what intervals they will make observations-time of day, morning or night.
    4. Aesthetic evaluation:
      a. What is objectionable? Why?
      b. What is good? Why?
    5. Write stories about observations.
      a. Spelling list of words children suggest to enable them to compose story.
      b. Compare notes from first observation to last observed and compare.
        1. Has spelling improved?
        2. Good sentence structure?
    6. Children may read stories to classmates.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sugge
Publications:	
Audio-Visual: Photographs - local news Magazine pictures of areas similar to those observed Collage or chart design making	
Community:	

e Materials	Continued and Additional Suggested Learning Experiences
ws reas rved n making	

CONCEPT

11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language Art
Subject Library
Problem Orientation Abuse

BEHAVIORAL OBJECTIVES

Cognitive: The students will answer four out of five correct answers to "yes" or "no" questions to tell the right ways of "marking-the-place" in a book.

Affective: The teacher will watch to see how books are marked and listen to see if children tell each other what to do.

Skills to be Learned

Logical thinking
Proper care of books

SUGGESTED LEARNING EXPERIE

I. Student-Centered in class activity

A. The teacher will say there is one child in the room who is a very good reader, but when library reading time is up, he bends the corner of the page to mark his place in the library book.

1. What would happen if all our class members did this?
2. If the entire school did this?
3. If everyone who went to the library did this?
4. Is this taking care of our library environment?
5. What other ways could we keep our place in a book?
6. Bookmarks will be made.

II. Out
Comm

duplicated

oduce significant Discipline Area Language Arts

erations over Subject Library

Problem Orientation Abuse Grade 2

VES	SUGGESTED LEARNING EXPERIENCES	
will or he he- ill re if	I. Student-Centered in class activity A. The teacher will say there is one child in the room who is a very good reader, but when library reading time is up, he bends the corner of the page to mark his place in the library book. 1. What would happen if all our class members did this? 2. If the entire school did this? 3. If everyone who went to the library did this? 4. Is this taking care of our library environment? 5. What other ways could we keep our place in a book? 6. Bookmarks will be made.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggest
Publications:	
Audio-Visual:	
Community:	

ials	Continued and Additional Suggested Learning Experiences

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encrouch upon or violate the individual right of others.

Discipline Area Language

Subject Language

Problem Orientation Land

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	
Cognitive: After taking a field trip the child will identify three wild flowers. Affective: The students will try to preserve wild flowers for other to enjoy.	I. Student-Centered in class activity	II. Ou Com Fie 1. p g 2. c c 3. i s 4. a F a b 5. a b 6. s r For O
Skills to be Learned Planning field trip - Transportation-bus or walk Observe flowers-natural setting Take notes Make sketches On return: Find illustrations and note pages.		

ership must be re-
wardship and should
on or violate the
t of others.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Land Use Grade 2

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
taking hild e udents ve wild to ed p - s or atural ns and	I. Student-Centered in class activity	II. Outside Resource and Community Activities Field trip: 1. Children will look for place where wild flowers grow. 2. Children will observe area carefully and look specifically for certain flowers. 3. May sketch hastily: leaves, indicate colors, flowers, shade of greeen, bud, seed. 4. If wild flower is an annual and not protected by law. Flowers may be taken to: a. Sketch b. Press and preserve 5. If biennial - a. Recognize leaves and plants b. Learn that it takes two years to produce seeds. 6. If bulbs - may grow from seeds - produce bulb and reproduce in two ways. For discussion: Ownership responsibility

Resource and Reference Materials	Continued and Additional Suggested
Publications: **Audio-Visual:** **Community:**	

erials	Continued and Additional Suggested Learning Experiences

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as ne

In commenting on each episode used in your class, you may format. Please feel free to adapt it and add more pages. and comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

ng on each episode used in your class, you may wish to duplicate this suggested se feel free to adapt it and add more pages. Let us know all your critiques - negative and positive.

al Objectives
tive:

tive:

eveloped

l Learning Experiences
ass:

de & Community Activities:

l Resource & Reference Materials
suggestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRO

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 3

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338

Robert
Robert
George

- C - E INSTRUCTION - CURRICULUM - ENVIRONMENT

NTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

AREA Language Arts GRADE 3

der Title III E.S.E.A.
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ools in CESA's 3-8-9
treet
Wisconsin 54301
338

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help is re
of over a hundred teachers, year long meetings, a summer workshop, u
ecologists, this guide means realistic, developed aid for you. Plea
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are design
ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your stu
to adapt, adopt, or use. By design, the range of suggestions is w
mentation and usage are even wider. Many episodes are self-contai
others can be changed in part or developed more keenly over a few
possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning expe
plan. The reasons are simple. No guide has all the answers and
unless viewed in the context of your classroom situation. Thus,
give it a triple reading, check over the resources listed, make m
prime your students, and seek help. The Project personnel and tea
knowledgement page stand ready to aid your efforts. Feel free to
4. The Project Resource Materials Center serves all CESA 3, 8, and 9
private. We will send available materials pre-paid. Call for an
visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library f
Center materials. Please offer suggestions, comments, or advice-
service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch id
suggestions on the episode pages or use the attached evaluation f
lected in late May next year and will be used in our revisions. W
reactions and suggestions--negative and positive. Please note tha
in the episodes may refer to specific, local community resources
cases, individual school districts and teachers will have to adopt
stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survival-
Creation's beauty and complexity--often noted as the work of a ge
and human energy to save. A year's work by a hundred of your fel
gesture. Without you, their work will crumble, and so might we a
let us live to think, feel, and act in harmony with our world.

E

1. Cognitive means a measurable mental skill, ability, or process
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cognit
4. EPA - Environmental Problem Area.

PREFACE

excite students about their environment, help is ready. Thanks to the efforts
teachers, year long meetings, a summer workshop, university consultants and
guide means realistic, developed aid for you. Please note the following ideas
ed teachers in writing and editing this guide.
supplementary in nature and the episodes are designed--at appropriate instan-
nto existing, logical course content.
pisode offers suggestions. Since you know your students best, you decide what
, or use. By design, the range of suggestions is wide; your chances for experi-
usage are even wider. Many episodes are self-contained, others open-ended, still
changed in part or developed more keenly over a few weeks. These built-in
allow you to explore.
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n the context of your classroom situation. Thus, before trying an episode,
e reading, check over the resources listed, make mental and actual notes,
ents, and seek help. The Project personnel and teachers listed on the ack-
age stand ready to aid your efforts. Feel free to ask their help in pre-planning.
ource Materials Center serves all CESA 3, 8, and 9 area schools--public and
ll send available materials pre-paid. Call for any help, materials, or to
32-4338.
Project ICE Bibliography in your school library for available Resource
s. Please offer suggestions, comments, or advice--at any time--so that this
w. Let's help each other.
f with the guide by reacting to it with scratch ideas, notes, and extended
the episode pages or use the attached evaluation format, which will be col-
May next year and will be used in our revisions. We sincerely want your
uggestions--negative and positive. Please note that some resources listed
may refer to specific, local community resources or conditions. In such
al school districts and teachers will have to adopt local or available sub-
st of terms pertinent to the episodes is below.
other experts have simplified the issue--survival--yours, mine, our students,
ty and complexity--often noted as the work of a genius--will take our genius
to save. A year's work by a hundred of your fellow teachers is a saving
t you, their work will crumble, and so might we all--literally. Instead,
think, feel, and act in harmony with our world.

Editorial Board

ns a measurable mental skill, ability, or process based on factual data.
fers to student attitudes, values, and feelings.
ceptable Performance Will Include (labels a cognitive or mental performance.)
mental Problem Area.

ACKNOWLEDGEMENTS: The following teachers and consultants particip
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Willard Collins, Crivitz
John Cowling, Niagara
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CESA #8
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David Bell, Neenah
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William Bohne, Kimberly
Bob Church, Little Chute
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Lee Halberg, Appleton
Ronald Hammond, Hortonville
Jerome Hennes, Little Chute
Barbara Huth, Menasha
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Harold Lindhorst, St.Martin (L)
John Little, Winneconne
Gordon Rohloff, Oshkosh
William Schaff, St. Joseph
Doris Stehr, Mt. Calvary (L)
Carolyn Shills, New London
Sister Dorothy, Xavier
Clarence Trentlage, Freedom
Mike Hawkins, Xavier
Beth Hawkins, Xavier
Ed Patschke, Menasha
Connie Peterson, St.Martin (L)
Dallas Werner, Kaukauna
Ron Schreier, Omro

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Carolyn Shills, New London
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David West, Lawrence U.

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CONCEPT 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area Lan

Subject Area Lan

Problem Orientation Ener

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: The student will relate, by means of writing a creative story on what a world would be without a sun. Affective: Students will realize that without the benefits of the sun's rays, there could be no life on earth. The children will defend the need of the sun in our lives.	I. Student-Centered in class activity 1. The teacher could throw out the question - "What would happen if the sun suddenly disappeared?" Have the children give ideas. (Ex. - How might the earth be different if there were no sun? Would it be dark and lifeless? Would it be cold? Why or why not? 2. Following the above discussion, write a creative story, "I am living in a world without a sun."	II.
Skills to be Learned Discussing Writing		

e sun, the basic source

converted through — Discipline Area: Language Arts

sis into a form all — Subject Area: Language

use for life pro-cesses. — Problem Orientation: Energy Use — Grade: 3

ECTIVES	SUGGESTED LEARNING EXPERIENCES I. Student-Centered in class activity	 II. Outside Resource and Community Activities
ident ns of story ld be s lth- the ould efend in our l	1. The teacher could throw out the question - "What would happen if the sun suddenly disappeared?" Have the children give ideas. (Ex. - How might the earth be different if there were no sun? Would it be dark and lifeless? Would it be cold? Why or why not? 2. Following the above discussion, write a creative story, "I am living in a world without a sun."	

Resource and Reference Materials	Continued and Additional Suggest
Publications: Books: World Book Encyclopedia, Volume S. Modern Science, Book 3, Smith, Belcha, Press. Laidlow, 1970. pp. 101-111; Bk. 4 - p. 156-57. Science: Comparing Things, Bk. 4. McMillan Co. by Bernard and Lavatelli. pp. 23-26; 63, 68, 136-37 (1970) Science in Your Life, Bk. 4. by Schneider. pp. 428, 443, 447. D.C. Heath Co. 1968 Audio-Visual: Filmstrips: Source: D.C. Heath & Co., 45 S. Dean St., Englewood, N.J. 07631. (May be rented or purchased.) The Seasons of the Year - Set 1 & 2 A Sunlight & the Earth's Temperature - Set 4A The World of Living Things - Set 5A Community:	

terials	Continued and Additional Suggested Learning Experiences
Volume S. mith, 1970. 56-57. , Bk. 4. and , 68, 4. 43, 8 a, ed mpe- s -	

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2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area La

Subject La

Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: A demonstration by the children, depicting family living in harmony and out of harmony. They will infer harmony is best. Affective: Children will promote happy family relationships in their lives.	I. Student-Centered in class activity A. Play SRA record or family story. B. List members of the famil living together-mother, father, brother, sister, grandmother, etc. C. Divide class into groups. Each group write a playlet showing: 1. How the family members work together happily. 2. What happens when disagreements arise. D. Put on playlets.
Skills to be Learned Create an idea Work in a group Participate in the playlet	

organisms interact among
d their environment,
tricate unit called an

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Ecosystem Grade 3

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
emonstration , depicting n harmony ony. They rmony is best. ildren will amily n their	I. Student-Centered in class activity A. Play SRA record or family story. B. List members of the family living together-mother, father, brother, sister, grandmother, etc. C. Divide class into groups. Each group write a playlet showing: 1. How the family members work together happily. 2. What happens when disagreements arise. D. Put on playlets.	II. Outside Resource and Community Activities
earned a up n the playlet		

Resource and Reference Materials	Continued and Additional Sugges
Publications:	
Audio-Visual: SRA Social Studies Record I Side I Filmstrip pertaining to Family Sharing & Living	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
o ng	

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CONCEPT 3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Children will differentiate between a party of a limited number and one where the party became overcrowded through question & answer. Affective: The children will feel the impact of crowded condition vs. uncrowded conditions.	I. Student-Centered in class activity 1. Teacher creates an imaginative situation: a. All are invited to a birthday party-unknown to hostess children brought their brothers and sisters. 2. Questions: Will there be enough room for games, food, prizes, and fun? 3. Will our chance for a prize be more or less? 4. What will too many at the party do to our good time.
Skills to be Learned Critical thinking Mental creative exercise Drawing conclusions	

factors are limiting

organisms living — Discipline Area: Language Arts

uence, thus, each — Subject: Language Arts

n carrying capacity — Problem Orientation: Population Density — Grade 3

NI ECTIVES	SUGGESTED LEARNING EXPERIENCES	
n will en a num- he party through ldren t of s. s.	I. Student-Centered in class activity 1. Teacher creates an imaginative situation: a. All are invited to a birthday party-unknown to hostess children brought their brothers and sisters. 2. Questions: Will there be enough room for games, food, prizes, and fun? 3. Will our chance for a prize be more or less? 4. What will too many at the party do to our good time.	II. Outside Resource and Community Activities
ed ercise s		

Resource and Reference Materials	Continued and Additional Sugg
Publications:	
Audio-Visual:	
mmunity:	

Materials	Continued and Additional Suggested Learning Experiences

CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area L

Subject L

Problem Orientation Ad Wa

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN	
Cognitive: Five words which describe pure or impure water will be learned for spelling. Sentences will be written describing pure or impure water.* Affective: By knowing these descriptive words about water, he will be able to tell why he needs pure water.	I. Student-Centered in class activity 1. The teacher will put the word "water" on the board. 2. The students will list any words which describe water. 3. These words will then be divided into two groups. a. Words which describe water which could be pure. b. Words which could describe impure water. 4. Sentences can be written using any of the words from above list. 5. Children will choose 5 or more words to learn to spell. 6. Thinking of these words children will discuss the need for all of us to have good, pure water.	II
Skills to be Learned Sentence writing Spelling Choosing descriptive word * The children will be given word cards describing conditions of water. Each child will classify his words under the heading of pure & impure water.		

te supply of pure

ential for life. Discipline Area Language Arts

Subject Language Arts

Problem Orientation Adequate Water Supply Grade 3

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ive words pure or ill be pelling. be written e or impure knowing tive words e will be why he needs	I. Student-Centered in class activity 1. The teacher will put the word "water" on the board. 2. The students will list any words which describe water. 3. These words will then be divided into two groups. a. Words which describe water which could be pure. b. Words which could describe impure water. 4. Sentences can be written using any of the words from above list. 5. Children will choose 5 or more words to learn to spell. 6. Thinking of these words children will discuss the need for all of us to have good, pure water.	II. Outside Resource and Community Activities
Learned ting criptive		
will be rds des- tions of ild will ords ing of water.		

Resource and Reference Materials	Continued and Additional Suggested L
Publications:	
Audio-Visual:	
Community:	

d erials	Continued and Additional Suggested Learning Experiences

C 5. An adequate supply of clean air is
O
N essential because most organisms
C
E depend on oxygen, through respiration,
P
T to release the energy in their food.

Discipline Area Language
Subject Language
Problem Orientation Cle

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: They will ~~list word~~s that tell about the conditions of the air. They will write a poem or prose about air. Adv. students may want to create their own. Affective: A list of words describing pure and impure air will be given to the child. He will put a P by the words that represent pure and an I by impure. (As smoke, supper cooking)	I. Student-Centered in class activity A. Class activity 1. Have children give words which describe air as the teacher lists them on board. (Muggy, clean, foggy, smelly, polluted) 2. Discuss meaning of words bringing in the fact that living organisms need air. 3. Class write a composite poem or prose about air. 4. Advanced students may wish to compose their own.	II.
Skills to be Learned Vocabulary development Poem or prose writing		

supply of clean air,is

e se most organisms Discipline Area Language Arts

e n, through respiration, Subject Language Arts

ea energy in their food. Problem Orientation Clean Air Grade 3

EXP BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
I. will C ell ons or Adv. to t of pure ll hild. y the ent impure.	I. Student-Centered in class activity A. Class activity 1. Have children give words which describe air as the teacher lists them on board. (Muggy, clean, foggy, smelly, polluted) 2. Discuss meaning of words bringing in the fact that living organisms need air. 3. Class write a composite poem or prose about air. 4. Advanced students may wish to compose their own.	II. Outside Resource and Community Activities
ned opment iting		

Resource and Reference Materials	Continued and Additional Suggested Learn
Publications:	
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences

C 6. Natural resources are not equally
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N distributed over the earth or over Discipline Area La
C
E time and greatly affect the geographic Subject La
P
T conditions and quality of life. Problem Orientation Resc

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Students will demonstrate by means of oral or written reports, some of the ways in which minerals can be recycled, in order to insure an adequate supply for future use. Affective: How did you feel about the responses of the people in our community when you asked if they were willing to turn in bottles and cans? The responses could be very willing, rather willing, or unwilling.	I. Student-Centered in class activity 1. Children can make verbal reports of their findings in the survey. 2. Short original poems about pollution of streams, and littering of highways. This could include the Haiku form of unrhymed verse.	II.
Skills to be Learned Reporting Writing poems Writing stories Discussion		

resources are not equally

Lar d over the earth or over

Lar reatly affect the geographic

es and quality of life.

Discipline Area Language Arts

Subject Language

Problem Orientation Resource Usage Grade 3

G RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
I. Students will by means of ten reports, ways in which be recycled, insure an ade- for future use. How did you he responses e in our com- you asked if lling to turn nd cans? The uld be very her willing, .	I. Student-Centered in class activity 1. Children can make verbal reports of their findings in the survey. 2. Short original poems about pollution of streams, and littering of highways. This could include the Haiku form of unrhymed verse.	II. Outside Resource and Community Activities 1. Collect empty soda and re-usable beer bottles and return them to the stores for refunds and reuse. 2. Collect used cans of both aluminum and tin for recycling purposes. 3. Children may survey their neighborhoods, to find if people are willing to turn in bottles and cans.
e Learned ms ries		

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Grade Teacher, Dec., '70, p. 4 "About Pollution" The Elks Magazine Feb., '71. "Ten Things to Tell Your Wife About Pollution." pp. 8-10, 29. Pamphlet - "Conserving Our Waters and Cleaning the Air." American Petroleum Institute. 1271 Avenue of the Americas. New York City, New York 10010 Audio-Visual: Filmstrip - Water for Tomorrow. Two color filmstrips and record. Teacher's Guide. 1810 Mackenzie Drive, Columbus, Ohio. Community: Local company (interview, brochures, and information)	

terials	Continued and Additional Suggested Learning Experiences
o. 4 1. ife 0, 29. Waters erican Avenue City, rrow. record. kenzie n)	

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7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Languag

Subject Languag

Problem Orientation Tran

BEHAVIORAL OBJECTIVES

Cognitive: Compare the roads of long ago with the modern day roads showing a change in uses due to population growth.

Affective: The teacher will give a hypothetical situation such as, a man with a small farm on the edge of town cannot raise enough food to feed his cows and he cannot buy more land. What should he do and why?

Skills to be Learned

Interpreting
Illustrating
Comparisons

SUGGESTED LEARNING EX

I. Student-Centered in class activity
  A. Classroom
    1. The teacher will use pictures of different types of roads for comparison.
    2. The students will compare farms, towns, cities of today to the farms, towns & cities of long ago. e.g. Cobblestone streets vs cement streets, dirt roads vs asphalt roads
    3. Discussion will follow telling why people move about now & how they moved about years ago.
    4. The students will pick out an area & make a picture, showing what it looked like years ago & how it has been changed to help us move from place to place. e.g. Dirt roads vs freeways.

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d leisure time have a great
changes in land use and
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Discipline Area Language Arts
Subject Language Arts
Problem Orientation TransportationGrade 3

AL OBJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. The teacher will use pictures of different types of roads for comparison.
    2. The students will compare farms, towns, cities of today to the farms, towns & cities of long ago. e.g. Cobblestone streets vs cement streets, dirt roads vs asphalt roads
    3. Discussion will follow telling why people move about now & how they moved about years ago.
    4. The students will pick out an area & make a picture, showing what it looked like years ago & how it has been changed to help us move from place to place. e.g. Dirt roads vs freeways.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggeste enc
Publications:	
Audio-Visual:	
ommunity:	

e ence Materials	Continued and Additional Suggested Learning Experiences

C O N C E P T	6. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	Discipline Area Subject Problem Orientation	Languag Languag Economi Attitud

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: The children will distinguish between the needs of a family and the luxuries by classifying pictures into the above 2 groups and will tell the resources of our environment needed and those which are luxuries. Affective: Is it true that our needs and luxuries use up our natural resources and at the same time cause a pollution problem.	I. Student-Centered in class activity 1. Children bring to class a picture of their family & catalogs & magazines. 2. The children will cut out pictures showing what the family needs & what the family wants. 3. A discussion will follow on what happens to our natural resources & pollution of our country when everyone has what he wants & what he needs. 4. Have a list of resources & tell children what resource was used for articles from No. 2. Library references may have to be used.	II. Out Comm
Skills to be Learned Classifying Critical thinking Using library references		

nomic, social, and
s determine status
and attitudes
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Discipline Area Language Arts
Subject Language Arts
Problem Orientation Economic Attitudes Grade 3

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
ildren etween ily and assifying above 2 ll the nviron- ose which true that ries use ources me cause m.	I. Student-Centered in class activity 1. Children bring to class a picture of their family & catalogs & magazines. 2. The children will cut out pictures showing what the family needs & what the family wants. 3. A discussion will follow on what happens to our natural resources & pollution of our country when everyone has what he wants & what he needs. 4. Have a list of resources & tell children what resource was used for articles from No. 2. Library references may have to be used.	II. Outside Resource and Community Activities
ed erences		

Resource and Reference Materials	Continued and Additional Suggested Learn
Publications: Audio-Visual: Community:	

aterials	Continued and Additional Suggested Learning Experiences

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C 10. Short-term economic gains may
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N produce long-term environmental
C
E losses.
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Discipline Area Language te

Subject Dramatiz

Conser

Problem Orientation of Re

BEHAVIORAL OBJECTIVES

Cognitive: By dramatizing & discussing, the students will show ability to empathize with each point of view in the killing for sport situation and will realize that short-term gains may mean long-term loss.

Affective: By volunteering observations in a class discussion, the student accepts the fact that short-term environmental gains may produce long-term environmental loss.

Skills to be Learned
- Dramatizing
- Critical judgement
- Verbal empathy
- Creative writing
- Oral skills

SUGGESTED LEARNING EX

I. Student-Centered in class activity
  A. Classroom
    1. Read poem, Hunting Song by Donald Finkel to class.
    2. Students decide what is meant in each stanza & how the character of each stanza feels.
    3. Discussion of why the hunter wanted to kill the fox.
    4. Discuss whether this is a good or poor idea, including what could happen if too many fox are killed.
    5. The children will form into small groups & give an extemporaneous dramatization in which the characters are animals & hunters.
    6. Children will give their viewpoints on hunter's justification of killing fox.

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Discipline Area Language Arts

Subject Dramatization & Discussion

Problem Orientation Conservation of Resources Grade 3

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
dramatizing he students ty to each point killing tion and at short- mean long- volunteering a class student t that short- tal gains g-term oss. arned ment ng	I. Student-Centered in class activity A. Classroom 1. Read poem, Hunting Song by Donald Finkel to class. 2. Students decide what is meant in each stanza & how the character of each stanza feels. 3. Discussion of why the hunter wanted to kill the fox. 4. Discuss whether this is a good or poor idea, including what could happen if too many fox are killed. 5. The children will form into small groups & give an extemporaneous dramatization in which the characters are animals & hunters. 6. Children will give their viewpoints on hunter's justification of killing fox.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Poem, Hunting Song, Donald Finkel Audio-Visual: Community:	

ence Materials	Continued and Additional Suggested Learning Experiences
Donald Finkel	

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11. Individual acts, duplicated, or compounded, produce significant environmental alterations over time.

Discipline Area Language

Subject Language

Problem Orientation Land

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: The students will examine a cubic foot of earth, listing their findings. When changes are made, students will record these changes, and will report the results of these changes. Affective: The children will respond to the question of--What could we do to improve our school to make it a more enjoyable place?	I. Student-Centered in class activity	II. C Co 1. 2. 3. 4.
Skills to be Learned Making comparisons Keener awareness and use of the senses		

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ual acts, duplicated,

ed,produce significant Discipline Area Language Arts

al alterations over time. Subject Language

Problem Orientation Land Use Grade 3

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
e students will c foot of their n changes ents will hanges, and e results of e children o the hat could ve our it a more e? earned lsons ess and use		1. Examine the various levels the earth: color, texture, density, smell. 2. Using senses - a. Describe the smell of the earth b. What words would you use to tell how the earth feels? c. Do some parts feel differently? d. How many colors do you see? e. Look for signs of life. f. Listen as you rub the earth between your hands. Can you describe the sound? 3. In what ways can we change the earth? a. Add water to it b. Add fertilizer c. Plant something in it d. Let it dry out in the sun e. Heat it in an oven 4. Try some of the above ideas with the earth. Plant the same kind of seed (corn) (cont.)

Resource and Reference Materials	Continued and Adiitional Suggested Lea
Publications: Science in Your Own Back Yard, Cooper, E. K., New York City, New York. Harcourt, Brace, and Company., 1958 Classroom Out-of-Doors, Schramm, Wilbur, Sequoia Press, 1969. A Handful of Soil, Simon, Seymour, Hawthorne Books. 70 Fith Avenue, New York, New York 10011. $3.95 **Audio-Visual:** **Community:**	II. cont. in foam cups and give each the sam Keep some of the plants away from some in the window. 5.Report findings and draw conclusio

Lea	Materials	Continued and Adiitional Suggested Learning Experiences
sam om sio	k Yard, k City, race, and Schramm, 1969. n, Seymour, th Avenue, 0011.	II. cont. in foam cups and give each the same amount of water. Keep some of the plants away from direct light, and some in the window. 5. Report findings and draw conclusions.

C 12. Private ownership must be
O
N regarded as a stewardship and
C
E should not encroach upon or violate
P
T the individual right of others.

Discipline Area Langu

Subject Oral
Co

Problem Orientation o

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: Children will list 5 measures & situations where private ownership must involve private stewardship. Affective: A child shows by his behavior that he regards private ownership as a stewardship & should not encroach upon or violate the individual rights of others.	I. Student-Centered in class activity A. Classroom 1. Before class begins, the teacher will distribute her possessions around the room - on desks, unde & near desks. She hopes the children will return them. 2. Discussion of what has just happened. Ask if it was right for me as a teacher to leave my things about. Why? (Someone else had to pick them up, they were in people's way. She was just causing other people to do unneces work. 3. Have students list thing which they should do to s they take care of their possessions & do not caus other people to suffer. 4. Do you like to have your area & freedom to work cluttered up with others possessions? or your spac used by someone else's belongings?
Skills to be Learned Listening Reasoning Discussion Critical thinking	

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ownership must be

gua a stewardship and — Discipline Area Language Arts

l E ncrouch upon or violate — Subject Oral Expression

Con

of al right of others. — Problem Orientation Conservation of Resources Grade 3

NG L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ildren will s & situations ownership e rivate steward- child shows by er hat he regards hip as a should not or violate the ghts of others.	I. Student-Centered in class activity A. Classroom 1. Before class begins, the teacher will distribute her possessions around the room - on desks, under & near desks. She hopes the children will return them. 2. Discussion of what has just happened. Ask if it was right for me as a teacher to leave my things about. Why? (Someone else had to pick them up, they were in people's way. She was just causing other people to do unnecesaary work. 3. Have students list things which they should do to show they take care of their possessions & do not cause other people to suffer. 4. Do you like to have your area & freedom to work cluttered up with others possessions? or your space used by someone else's belongings?	II. Outside Resource and Community Activities
Learned - m s nking g ess gs sho se r ce		

Resource and Reference Materials	Continued and Additional Sug
Publications: Audio-Visual: Community:	

e Materials	Continued and Additional Suggested Learning Experiences

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish to d format. Please feel free to adapt it and add more pages. Let us know comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

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negative and positive.

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sted Learning Experiences
Class:

tside & Community Activities:

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ific suggestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONMENT

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 4

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338

Robert Warpinski
Robert Kellner,
George Howlett,

INSTRUCTION - CURRICULUM - ENVIRONMENT

GRAM FOR ENVIRONMENTAL EDUCATION

nguage Arts GRADE 4

e III E.S.E.A.
CESA's 3-8-9
n 54301

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help is ready
of over a hundred teachers, year long meetings, a summer workshop, univ
ecologists, this guide means realistic, developed aid for you. Please
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed-
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your studen
   to adapt, adopt, or use. By design, the range of suggestions is wide
   mentation and usage are even wider. Many episodes are self-contained
   others can be changed in part or developed more keenly over a few we
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning experie
   plan. The reasons are simple. No guide has all the answers and no
   unless viewed in the context of your classroom situation. Thus, bef
   give it a triple reading, check over the resources listed, make ment
   prime your students, and seek help. The Project personnel and teache
   knowledgement page stand ready to aid your efforts. Feel free to ask
4. The Project Resource Materials Center serves all CESA 3, 8, and 9 ar
   private. We will send available materials pre-paid. Call for any h
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library for
   Center materials. Please offer suggestions, comments, or advice--at
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch ideas
   suggestions on the episode pages or use the attached evaluation form
   lected in late May next year and will be used in our revisions. We s
   reactions and suggestions--negative and positive. Please note that s
   in the episodes may refer to specific, local community resources or
   cases, individual school districts and teachers will have to adopt l
   stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survival--you
   Creation's beauty and complexity--often noted as the work of a genius
   and human energy to save. A year's work by a hundred of your fellow
   gesture. Without you, their work will crumble, and so might we all-
   let us live to think, feel, and act in harmony with our world.

Edit

1. Cognitive means a measurable mental skill, ability, or process bas
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cognitive
4. EPA - Environmental Problem Area.

PREFACE

students about their environment, help is ready. Thanks to the efforts
rs, year long meetings, a summer workshop, university consultants and
eans realistic, developed aid for you. Please note the following ideas
hers in writing and editing this guide.
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in part or developed more keenly over a few weeks. These built-in
ou to explore.
try the episodes and suggested learning experiences but please pre-
e simple. No guide has all the answers and no curriculum will work
context of your classroom situation. Thus, before trying an episode,
ing, check over the resources listed, make mental and actual notes,
and seek help. The Project personnel and teachers listed on the ack-
and ready to aid your efforts. Feel free to ask their help in pre-planning.
Materials Center serves all CESA 3, 8, and 9 area schools--public and
d available materials pre-paid. Call for any help, materials, or to
8.
ct ICE Bibliography in your school library for available Resource
ease offer suggestions, comments, or advice--at any time--so that this
t's help each other.
the guide by reacting to it with scratch ideas, notes, and extended
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xt year and will be used in our revisions. We sincerely want your
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terms pertinent to the episodes is below.
experts have simplified the issue--survival--yours, mine, our students,
complexity--often noted as the work of a genius--will take our genius
ave. A year's work by a hundred of your fellow teachers is a saving
, their work will crumble, and so might we all--literally. Instead,
feel, and act in harmony with our world.

Editorial Board

easurable mental skill, ability, or process based on factual data.
student attitudes, values, and feelings.
le Performance Will Include (labels a cognitive or mental performance.)
Problem Area.

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Lillian Goddard, Coleman
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Ester Kaatz, Wausaukee
Michael Kersten, Suring
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Ruth Ward, Crivitz
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Darrell Johnson, Hortonville
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John Little, Winneconne
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Sister Dorothy, Xavier
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Dennis

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CESA #8

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Gloria Morgan, Linsmeier Private
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John DeWan, Green Bay
Emmajean Harmann, Sevastopol
Ray Gantenbein, Green Bay
David Bartz, Sturgeon Bay
John Hussey, Green Bay
Sister Barbara, St. Bernard

Robert Cook, UWGB
Dennis Bryan, UWGB

CONCEPT		
1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.	Discipline Area	L
	Subject	L
	Problem Orientation	E

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The students will be able to point out how life dpends on the sun by listing ways, dramatizing poems, creative writing of poems, and choral reading. Affective: The children will praise the sun as a basic source of energy - even through poetry.	I. Student-Centered in class activity 1. Children will bring poems to class concerning the sun. 2. As individual poems are read, each student will jot down ways in which life depends on the sun. 3. Discussion will follow of the ways in which life depends on the sun after each poem or after all peoms are read. 4. The children can use the poem on back for choral reading using light, medium, and dark voices. 5. The children can form into groups, each group choosing a poem to dramatize putting emphasis on how the sun helps us. 6. The children can write short poems telling about the energy of the sun; e.g.: I wait for the sun each morn, When each new day is born, To see each lovely thing. What new life it will bring.	II
Skills to be Learned Dramatizing Listing Creative writing Discussion Using library resources Choral reading Analysis		

from the sun, the basic source
rgy, is converted through
osynthesis into a form all
ngs can use for life processes.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Energy Grade 4

RAL OBJECTIVES

The students
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, creative
oems, and
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The children
the sun as a
of energy -
poetry.

Learned

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Children will bring poems to class concerning the sun.
2. As individual poems are read, each student will jot down ways in which life depends on the sun.
3. Discussion will follow of the ways in which life depends on the sun after each poem or after all peoms are read.
4. The children can use the poem on back for choral reading using light, medium, and dark voices.
5. The children can form into groups, each group choosing a poem to dramatize putting emphasis on how the sun helps us.
6. The children can write short poems telling about the energy of the sun; e.g.:

   I wait for the sun each morn,
   When each new day is born,
   To see each lovely thing.
   What new life it will bring.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sug
Publications: Man (In a Poetic Mode) McDongal, Littell & Co. Poems: On A Sunny Evening - Anonymous Children Song for the Sun that Disappeared Behind the Rainclouds, Primitive African Trans. Ullibeier. Audio-Visual: Community:	Song for the Sun That Dis The fire darkens, the woo The flame extinguishes, m God sets out in search of The rainbow sparkles in h the bow of the divine hu He has heard the lamentat He walks along the milky With quick arms he piles piles them up with quick like a woman who collect and piles them into her until the pot overflows until the basket overflo Primitive African (Ho Translated by Ulli B

ce Materials	Continued and Additional Suggested Learning Experiences
) Co. - Anonymous at Disappeared uds, Primitive libeier.	Song for the Sun That Disappeared Behind the Rainclouds The fire darkens, the wood turns black. The flame extinguishes, misfortune upon us. God sets out in search of the sun. The rainbow sparkles in his hand, the bow of the divine hunter. He has heard the lamentations of his children. He walks along the milky way, he collects the stars. With quick arms he piles them into a basket, piles them up with quick arms like a woman who collects lizards and piles them into her pot, piles them up until the pot overflows with lizards until the basket overflows with light. Primitive African (Hottentot) Translated by Ulli Beier

C 2. All living organisms interact among
O
N themselves and their environment,
C
E forming an intricate unit called
P
T an ecosystem.

Discipline Area Langua

Subject Englis

Problem Orientation Ecosys

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	TI
Cognitive: Each child will write an imaginative story of one day in the life of a plant or animal observed in the patch or clump of earth. Affective: They will learn to enjoy nature as it is without man.	I. Student-Centered in class activities 1. Read poem "The Worm" or similar poem about small creatures. Children put themselves in role of creature in poem & act out what might happen to it during one day. 2. Write stories - children take part of any plant or animal found in study and write about - My Day in a Clump of Grass.	II. Ou d Co ati
Skills to be Learned Using descriptive language Sentence structure Paragraphing Imagination Using card catalog		

isms interact among

r environment, Discipline Area Language Arts

e unit called Subject English

Problem Orientation Ecosystem Grade 4

TIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activities	II. Outside Resource and Community Activities
d tive he imal or learn is	1. Read poem "The Worm" or similar poem about small creatures. Children put themselves in role of creature in poem & act out what might happen to it during one day. 2. Write stories - children take part of any plant or animal found in study and write about - My Day in a Clump of Grass.	
nguage		

Resource and Reference Materials	Continued and Additional Sug

Publications:

Books:

Concepts in Science 4 p. 135-73
and p. 175-209.

Under a Tree by Elizabeth Madox
Roberts - Viking Press.

Our Living World of Nature by
McGraw-Hill Book Co.

- The Life of the Cave
- The Life of the Ocean
- The Life of the Marsh
- The Life of Rivers & Streams
- The Life of the Pond
- The Life of the Seashore
- The Life of the Desert
- The Life of the Mountains
- The Life of the Prairies & Plains

Margaret Waring Buck, Abingdon

- In Woods & Fields
- In Ponds & Streams

Audio-Visual:

String & stakes or shovels
Several reading glasses
Plastic bags or wide-mouth
glass jars for carrying earth
samples
Movie projector
Film:
Life in a Cubic Foot of Soil
BAVI 5677 - 11 min.

Community:

e Materials	Continued and Additional Suggested Learning Experiences
p. 135-73 beth Madox ss. ature by e an sh & Streams d shore ert ntains iries & Plains , Abingdon vels s outh ng earth of Soil	

ESEA Title III - 59-70-0135-1 Project I-C-E

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Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.(3)

Discipline Area Languag

Subject Languag

Problem Orientation Populat Densit

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: List 5 ways that the classroom becomes too crowded & uncomfortable for good learning. (Ex,- poor air, noise, nearness, no room for walking, no room for experiments, teacher can't find time to talk to students. Affective: Defend the idea that all plants, animals & people can become too many for a given area and this causes a lack of quality.	I. Student-Centered in class activity 1. Teacher asks, "What would happen if our principal said we needed to have 18 more students put into our rather small classroom?" Discussion: a. Conditions for learning b. Conditions for activities c. Conditions for noise Take notes.	II. Ou Comm
Skills to be Learned Concentration of a concept Making observations Taking notes Reporting (objective description)		

tors are limiting

organisms living Discipline Area Language Arts

uence, thus, each Subject Language Arts

carrying capacity.(3) Problem Orientation Population Density Grade 4

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
ways becomes fortable ise, near- walking, ments, time to the ts, an be- a given es a	1. Teacher asks, "What would happen if our principal said we needed to have 18 more students put into our rather small classroom?" Discussion: a. Conditions for learning b. Conditions for activities c. Conditions for noise Take notes.	
ed a ns ive		

Resource and Reference Materials	Continued and Additional Suggested Le
Publications:	
Audio-Visual:	
Community:	

Le Materials	Continued and Additional Suggested Learning Experiences

CONCEPT

4. An adequate supply of pure water is essential for life.

Discipline Area Lang

Subject Engl

Problem Orientation Adec Wate

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: The child will show that he understands the water cycle by writing an imaginative story about a water molecule. **Affective:** The student will read a favorite poem about water to the class.	I. Student-Centered in class activity 1. Read aloud poems to contrast moods. 2. Interpret through pantomine and creative dance the moods of music and poems (especially those starred). Children become raindrops, ocean waves, snowflakes, plants, animals, etc. 3. Dramatize the water cycle incorporating feeling & moods from poems & music with facts from science or social studies-include polluting agents into dramatization. 4. Write imaginative story "The Travels of the Water Molecule."	II. C
Skills to be Learned Interpreting poetry and music Reacting physically to poetry and music Creative writing		

quate supply of pure

ng essential for life. Discipline Area Language Arts

gl Subject English

eq

te Problem Orientation Adequate Water Supply Grade 4

EX RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES I. Student-Centered in class activity	 II. Outside Resource and Community Activities
The child will C e understands ycle by writing ive story about ecule. The student favorite poem to the class. e Learned ng poetry hysically to music riting	1. Read aloud poems to contrast moods. 2. Interpret through pantomime and creative dance the moods of music and poems (especially those starred). Children become raindrops, ocean waves, snowflakes, plants, animals, etc. 3. Dramatize the water cycle incorporating feeling & moods from poems & music with facts from science or social studies-include polluting agents into dramatization. 4. Write imaginative story "The Travels of the Water Molecule."	

Resource and Reference Materials	Continued and Additional Suggested
Publications: Books: Wind Song by Carl Sandburg p. 23 Sea Wisdom, Harcourt, Brace, & World p. 63 Niagara, p. 106* Summer Grass Let Freedom Ring, Hallmark Cards Navajo Chant. Little Hills - Sam Bryan, p. 51 Tap Roots & Tips, Wells Printing Co., Madison. The Poems of Robert Frost, p. 263 Spring Pools, Random House. Miracles by Richard Lewis, p. 56 Rain* Simon & Schuster. AAudio-Visual: Record: La Mer* Debussy.	

ence Materials	Continued and Additional Suggested Learning Experiences
Sandburg arcourt, 63 Summer Grass Hallmark Cards Bryan, p. 51 Wells Printing t Frost, p. 263 dom House. d Lewis, & Schuster.	

CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area Language A

Subject English

Problem Orientation Adequate Water Sup

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIEN	
Cognitive: Each child will write a letter, in correct form, either requesting permission to visit plant or thanking people who conducted tour and each child will write a report or make a poster or chart recording information gained. Affective: The child will be able to organize information about adequate water supply.	I. Student-Centered in class activity 1. Write letters to water plant and/or sewage disposal plant requesting permission to visit-use text for correct form. 2. Discuss how to take notes. 3. Write reports of field trips for school paper, newspaper, children's own writing notebooks, bulletin board, office, reports to P.T.A. etc. Or, Make posters and charts showing how water is obtained & distributed & how sewage is collected, treated & disposed of. 4. Write thank-you notes. 5. Read poem "The Tide River" about pollution in 19th century.	II. Outsic Communi 1. Fiel and/c Follc
Skills to be Learned Correct letter form Notetaking Summarizing Sentence structure Paragraphing Spelling		

supply of pure

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Discipline Area Language Arts

Subject English

Problem Orientation Adequate Water Supply Grade 4

IEN OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
sic child will uni in correct iel uesting d/c sit plant llc le who nd each a report or chart ation child orga- about upply. rned form ure	I. Student-Centered in class activity 1. Write letters to water plant and/or sewage disposal plant requesting permission to visit-use text for correct form. 2. Discuss how to take notes. 3. Write reports of field trips for school paper, newspaper, children's own writing notebooks, bulletin board, office, reports to P.T.A. etc. Or, Make posters and charts showing how water is obtained & distributed & how sewage is collected, treated & disposed of. 4. Write thank-you notes. 5. Read poem "The Tide River" about pollution in 19th century.	II. Outside Resource and Community Activities 1. Field trip to water plant and/or sewage disposal plant. Follow with discussion.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Books: Concepts in Science, Book 4, p. 61-94, Harcourt, Brace, & World. The Social Sciences-Concepts & Values 4 - p. 86-94. Harcourt, Brace & World. Our Language Today 4 - p. 219-230. p. 87-99. American Book Company. Poem: "The Tide River" Charles Kingsley. Illustrated Treasury of Poetry for Children. David Ross - Grosset & Dunlap. Audio-Visual: Large sheets of cardboard Community:	

e Materials	Continued and Additional Suggested Learning Experiences
Book 4, Brace, & oncepts & Harcourt, - p. 219- can Book les d Treasury en. David ap. ard	

CONCEPT 5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Area Language Ar

Subject Language Ar

Problem Orientation Clean Ai

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: Each child give a 1/2 minute pantomine on how the object gets air. Affective: The teacher will stimulate a conversation about how air is used by other things including plants, animals & machines. The students will volunteer to research for answers to above.	I. Student-Centered in class activity	II. Ou Com A. p a c n B. t t i
Skills to be Learned Dramatize Linking action & thought-through imagination		

upply of clean air is
e most organisms
, through respiration,
nergy in their food.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Clean Air Grade 4

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
hild give mine on s air. acher will sation sed by ding machines. volunteer swers		A. Each child brings a picture of a plant, animal or machine (excluding people) which need air. B. Discuss how all these things u[illegible]ur air-is the air [illegible]as clean as it was b[illegible]e its use.

ned

Resource and Reference Materials	Continued and Additional Suggeste
Publications: **Audio-Visual:** Pictures or objects such as (toy cars, trains, fish, etc.) **Community:**	

rials	Continued and Additional Suggested Learning Experiences
etc.)	

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6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area Languag

Subject Languag

Problem Orientation Resource

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: Student will answer factual questions on the resources of his choice. Affective: Each child will respond to the teacher: Do you think you picked a good resource to show that natural resources are not distributed equally? Why or why not?	I. Student-Centered in class activity 1. Students role-play a natural resource (rain, trees, etc.) 2. Each student chooses one resource. 3. Students ask questions - answered by role-player. 4. Questions ought to be on the availability & quantity left on Earth of their particular resource.	II. Out Comm 1. F lib
Skills to be Learned Locating and taking notes on a selected item Standing before class to role-play.		

rces are not equally

the earth or over — Discipline Area: Language Arts

affect the geographic — Subject: Language Arts

uality of life. — Problem Orientation: Resource Usage — Grade: 4

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
t will stions f his hild e teacher: icked a how that are not y? Why	I. Student-Centered in class activity 1. Students role-play a natural resource (rain, trees, etc.) 2. Each student chooses one resource. 3. Students ask questions - answered by role-player. 4. Questions ought to be on the availability & quantity left on Earth of their particular resource.	II. Outside Resource and Community Activities 1. Reseach of resource in library.
ned ng notes n lass to		

Resource and Reference Materials	Continued and Additional Sugge
Publications: **Audio-Visual**: **Community**:	

Materials	Continued and Additional Suggested Learning Experiences

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7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Language Art

Subject Language Art

Problem Orientation Leisure T

BEHAVIORAL OBJECTIVES

Cognitive: Children will perform, through pantomine, a clear idea on a leisure time activity. Peers will interpret pantomine & the children should differentiate between harmless and harmful.

Affective: The teacher will provide a list of leisure time activities (play) to be classified into suitabilities for children, young people & adults.

Skills to be Learned

Dramatization

Making judgements

SUGGESTED LEARNING EXPERI

I. Student-Centered in class activity
  A. Classroom
    1. Teacher will ask the students, "What is leisure time?
    2. How many hours of leisure time do we have during a school day? a week-end? summer time?
    3. Children choose a leisure time activity to dramatize.
    4. Each activity is listed on the board & class discussion as to whether this activity caused a harmful effect on our environment.
    5. Children may classify these leisure time activities into suitabilities for:

	Children	Young People	Adults
Reading	x	x	x
Bike riding	x	x	x
Building blocks	x		
Baseball	x	x	x
Singing	x	x	x
Playing dolls	x		
Swimming	x	x	x

II

facilitating transportation,

s, population growth, Discipline Area Language Arts

ure time have a great Subject Language Arts

es in land use and Problem Orientation Leisure Time Grade 4

ion density.

SUGGESTED LEARNING EXPERIENCES

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people &

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I. Student-Centered in class activity
   A. Classroom
      1. Teacher will ask the students, "What is leisure time?
      2. How many hours of leisure time do we have during a school day? a week-end? summer time?
      3. Children choose a leisure time activity to dramatize.
      4. Each activity is listed on the board & class discussion as to whether this activity caused a harmful effect on our environment.
      5. Children may classify these leisure time activities into suitabilities for:

	Children	Young People	Adults
Reading	x	x	x
Bike riding	x	x	x
Building blocks	x		
Baseball	x	x	x
Singing	x	x	x
Playing dolls	x		
Swimming	x	x	x

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sugges
Publications:	
Audio-Visual:	
Community:	

ence Materials	Continued and Additional Suggested Learning Experiences

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8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area Langua

Subject Langua

Problem Orientation Cultur
Attitu

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Each student will demonstrate his attitude toward his environment through the media of writing poetry. Affective: Color in nature enhances our lives. Shall we change this natural color by pollution?	I. Student-Centered in class activity 1. Read several poems to children. 2. Discuss the type of person who could write things like this about color. How do you think she feels about her environment. 3. Discuss the senses she should have to use. 4. Depending on the season of year, concentrate on an appropriate color: green or brown, blue, or white, etc. 5. Write a poem telling about the color being emphasized.	II. Ou Com 1. bo an co re ta fr 2. I a. b.
Skills to be Learned Observation Writing poetry		

, economic, social, and

actors determine status — Discipline Area: Language Arts

lues and attitudes — Subject: Language Arts

environment. — Problem Orientation: Cultural Attitudes — Grade: 4

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ach student ate his atti- is environ- the media of y. olor in natur lives. Shall s natural ution?	I. Student-Centered in class activity 1. Read several poems to children. 2. Discuss the type of person who could write things like this about color. How do you think she feels about her environment. 3. Discuss the senses she should have to use. 4. Depending on the season of year, concentrate on an appropriate color: green or brown, blue, or white, etc. 5. Write a poem telling about the color being emphasized.	II. Outside Resource and Community Activities 1. Children, armed with notebooks and a pencil, go outside and look for things that color, touch and collect if reasonable. Smell, perhaps taste. Do you hear anything from that color? 2. Library: a. Read additional poems b. Do research on Mary O'Neill.
Learned ry		

Resource and Reference Materials	Continued and Additional Suggested Learnin
Publications: Hailstones and Halibut Bones, Mary O'Neill, Doubleday & Co., Inc., Garden City, N.Y., 1961. Audio-Visual: Recordings of poems and nature sounds to set up "walk" experience. Community: State Historical Society other sources of nature poems	

aterials	Continued and Additional Suggested Learning Experiences
nes, & Co., Inc.,	
ture	
oems	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area L

Subject L

C

Problem Orientation A

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Through writing poetry and copying other poet's poetry about nature, man's values and attitudes toward his environment become more concrete. Affective: We can praise our surroundings through the poetic words of others and ourselves.	I. Student-Centered in class activity 1. Introduce pupils to the idea of what an anthology of poems is by having them select poems which they enjoyed. Explain what anthology means. 2. Pupils read favorite poems to class.	II
Skills to be Learned Reading poetry Writing poetry Listening to poetry		

, economic, social, and
actors determine status
ues and attitudes
environment.

Discipline Area: Language Arts
Subject: Language Arts
Problem Orientation: Cultural Attitudes
Grade: 4

L OBJECTIVES

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and attitudes
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rds of others

Learned
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poetry

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Introduce pupils to the idea of what an anthology of poems is by having them select poems which they enjoyed. Explain what anthology means.
2. Pupils read favorite poems to class.

II. Outside Resource and Community Activities

1. Library
   a. Divide class into groups to locate in library categories of poems dealing with nature. Categorize poems into "Animals," "Trees," "Flowers," etc.
   b. Pupils add own poems to copied poems to assemble booklet with their own paintings, printing and cover.
   c. Invite other classes to hear poems and see booklets.
   d. Booklets could be given to shut-ins.

Resource and Reference Materials	Continued and Additional Suggested L
Publications: Children's Anthology. Poetry by following writers: Eugene Field Robert Louis Stevenson Henry Longfellow James Kiley The MacMillan English Series 4, MacMillan Co., 1969. Audio-Visual: Community:	

aterials	Continued and Additional Suggested Learning Experiences
rs:	
ies 4,	

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Langu

Subject Langu

Problem Orientation I

BEHAVIORAL OBJECTIVES

Cognitive: After examining the waste paper collection of the classroom or school, the class will prepare a tape, slide or picture presentation of the amount of paper used.

Affective: Students will in some way of their own choice, attempt to improve the manner in which they & their peers can conserve natural resources.

Skills to be Learned

- Group discussion
- Preparation of slides
- Prepare a talk
- Interview

SUGGESTED LEARNING

I. Student-Centered in class activity
  A. Classroom
    1. There is a rule of thumb after quoted: 19 trees produce a ton of paper. Have student think in terms of 1 tree producing 200 lbs. of paper.
    2. Weight the amount of used paper discarded in the clas or entire school if possibl each day for a week or more.
    3. Equate this to the number of trees it required to make this paper.
    4. Break into small groups to discuss the ways this situat can be improved. What can th do about it?
    5. Then discuss how they can convince their classmates o the need & the way for the wise use of paper. Possibil
      a. Panel discussion
      b. Prepare slides & a talk
      c. Prepare slides accompani a student prepared tape
      d. Make posters
      e. Make a large tree, anima Use children's voices liv taped for the talking tre

-term economic gains may

ng-term environmental

Discipline Area Language Arts

Subject Language

Problem Orientation Land Use Grade 4

DRAL OBJECTIVES

After examining
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Students will
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in which they
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talk

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. There is a rule of thumb after quoted: 19 trees produce a ton of paper. Have student think in terms of 1 tree producing 200 lbs. of paper.
    2. Weight the amount of used paper discarded in the class or entire school if possible each day for a week or more.
    3. Equate this to the number of trees it required to make this paper.
    4. Break into small groups to discuss the ways this situation can be improved. What can they do about it?
    5. Then discuss how they can convince their classmates of the need & the way for the wise use of paper. Possibilities:
      a. Panel discussion
      b. Prepare slides & a talk
      c. Prepare slides accompanied by a student prepared tape
      d. Make posters
      e. Make a large tree, animate. Use children's voices live or taped for the talking tree.

II. Outside Resource and Community Activities
  A. Teacher--
    1. Measure their attempt to change the behavior of their peers.
    2. For another week or more, weigh the amount of scrap paper.
    3. Interview other teachers to find out if they can notice a conscious attempt on the part of students to use paper wisely.

Resource and Reference Materials	Continued and Additional Suggested Learni
Publications:	
Audio-Visual:	
Community:	

erials	Continued and Additional Suggested Learning Experiences

C
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11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language

Subject Descript

Problem Orientation Land

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: Children will write two (or more) descriptive paragraphs - at least one factual and one imaginative - showing changes in environment affected by man. Affective: The child will choose something which has been changed since white man came to Wisconsin. He will offer reasons why this is good or bad.	I. Student-Centered in class activity 1. Use language texts-sections on writing descriptions-factual and imaginative and writing paragraphs. 2. Using social studies texts, books about Wisconsin history, Wisconsin magazines, etc., to find out what Wisconsin was like before white men arrived. 3. Write then and now descriptive paragraphs showing how man has affected his environment in Wisconsin. a. Factual paragraph b. Imaginative paragraph 4. Observe one thing observed on field trip or from children's previous experience and describe it in a descriptive paragraph. a. Factually b. Imaginatively-expressing personal feeling or reaction to thing observed.	II. Ou Com 1. t w h K p
Skills to be Learned Writing of descriptions Writing of paragraphs Observations Making comparisons Expressing reactions or feelings clearly Sentence structure Spelling		

ual acts, duplicated

ed, produce significant

al alterations over time.

Discipline Area Language Arts

Subject Descriptive Writing

Problem Orientation Land Use Grade 4

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ildren will more) aragraphs - at tual and one showing vironment an. he child omething n changed an came He will why this d.	I. Student-Centered in class activity 1. Use language texts-sections on writing descriptions-factual and imaginative and writing paragraphs. 2. Using social studies texts, books about Wisconsin history, Wisconsin magazines, etc., to find out what Wisconsin was like before white men arrived. 3. Write then and now descriptive paragraphs showing how man has affected his environment in Wisconsin. a. Factual paragraph b. Imaginative paragraph 4. Observe one thing observed on field trip or from children's previous experience and describe it in a descriptive paragraph. a. Factually b. Imaginatively-expressing personal feeling or reaction to thing observed.	II. Outside Resource and Community Activities 1. Field trip to observe things in our environment which makes it more beautiful and/or uglier. Keep notes and/or take pictures.
Learned scriptions ragraphs isons actions or arly cture		

Resource and Reference Materials	Continued and Additonal Suggested Lear
Publications: Language textbook: Our Language Today -4, pp. 168-174, American Book Company Books about Wisconsin: Exploring Wisconsin, Follett Publishing Co., 1967. The Enchantment of America-Wisconsin, Children's Press, 1964. Badger Tales, Lyons & Cornahan, 1940. Magazines about Wisconsin: Badger History Wisconsin Tales and Trails Audio-Visual: Pictures of Wisconsin before coming of white man. Pictures of present day Wisconsin. Wisconsin travel brochures Camera and film Community:	

Materials	Continued and Additonal Suggested Learning Experiences
pp. 168-174, llett ica- Press, 1964. ornahan, 1940. n: ils efore res	

C 12. Private ownership must be
O
N regarded as a stewardship and
C
E should not encrouch upon or violate
P
T the individual right of others.

Discipline Area Language Art
Subject English
Problem Orientation Conservat of Resou

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: Each child will express his opinions about industralized neighborhood situations in a letter written in correct form to editor, business or Congressman. Affective: Each child will choose an area the class visited or another one he prefers & list the misuse or the good use of the natural resources.	I. Student-Centered in class activity	II. Outsi Communi A. Outs 1. i h o r 2. f r 3. e & 4. e & b 5. C i p s
Skills to be Learned Observation Analyzing Correct letter form Expressing ideas & feelings in clear Courteous language		

ESEA Title III - 59-70-0135-1 Project I-C-E

wnership must be

stewardship and — Discipline Area Language Arts

ncrouch upon or violate — Subject English

al right of others. — Problem Orientation Conservation of Resources Grade 4

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
h child will inions about neighborhood a letter rect form to ss or ch child will the class ther one he the misuse e of the ces. earned r form eas & feelings guage		A. Outside classroom 1. Field trip to study an industrialized neighborhood for signs of pollution or misuse of natural resources. 2. Class discussions on findings & possible reasons for them. 3. Write letters to editor explaining what was found & child's reaction to it. 4. Write letters to companies explaining what was found & asking them what is being done about it. 5. Write letters to State Congressmen for any information on State pending bills concerned with situation discovered.

Resource and Reference Materials	Continued and Additional Sugges
Publications: Language textbook - Unit on correct letter form Science and/or social studies text - How man has changed environment Audio-Visual: List of name & addresses of newspapers, businesses concerned, Congressmen, etc. Community: Local business leader Farmer City official These can all be interviewed by students or they can give a talk to the class	

Materials	Continued and Additional Suggested Learning Experiences
t on correct tudies text - vironment s of concerned, iewed by ive a	

PROJECT I-C-E

Episode Evaluation
(Reproduce or duplicate a

In commenting on each episode used in your class, you format. Please feel free to adapt it and add more pages comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
(specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form

(Reproduce or duplicate as needed)

g on each episode used in your class, you may wish to duplicate this suggested feel free to adapt it and add more pages. Let us know all your critiques and tive and positive.

Objectives
ve:

ve:

eloped

Learning Experiences
s:

& Community Activities

Resource & Reference Materials
suggestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONMEN

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 5

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
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- E INSTRUCTION - CURRICULUM - ENVIRONMENT

RY PROGRAM FOR ENVIRONMENTAL EDUCATION

EA Language Arts GRADE 5

: Title III E.S.E.A.

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sconsin 54301
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Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help is ready.
of over a hundred teachers, year long meetings, a summer workshop, univers
ecologists, this guide means realistic, developed aid for you. Please not
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed--at
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your students
   to adapt, adopt, or use. By design, the range of suggestions is wide; y
   mentation and usage are even wider. Many episodes are self-contained, c
   others can be changed in part or developed more keenly over a few weeks
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning experience
   plan. The reasons are simple. No guide has all the answers and no cur
   unless viewed in the context of your classroom situation. Thus, before
   give it a triple reading, check over the resources listed, make mental
   prime your students, and seek help. The Project personnel and teachers
   knowledgement page stand ready to aid your efforts. Feel free to ask th
4. The Project Resource Materials Center serves all CESA 3, 8, and 9 area
   private. We will send available materials pre-paid. Call for any help
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library for ava
   Center materials. Please offer suggestions, comments, or advice--at an
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch ideas, n
   suggestions on the episode pages or use the attached evaluation format,
   lected in late May next year and will be used in our revisions. We sinc
   reactions and suggestions--negative and positive. Please note that some
   in the episodes may refer to specific, local community resources or conc
   cases, individual school districts and teachers will have to adopt local
   stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survival--yours,
   Creation's beauty and complexity--often noted as the work of a genius--w
   and human energy to save. A year's work by a hundred of your fellow tea
   gesture. Without you, their work will crumble, and so might we all--lit
   let us live to think, feel, and act in harmony with our world.

Editori

1. Cognitive means a measurable mental skill, ability, or process based
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cognitive or
4. EPA - Environmental Problem Area.

PREFACE

e students about their environment, help is ready. Thanks to the efforts
hers, year long meetings, a summer workshop, university consultants and
means realistic, developed aid for you. Please note the following ideas
achers in writing and editing this guide.
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you to explore.
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stand ready to aid your efforts. Feel free to ask their help in pre-planning.
e Materials Center serves all CESA 3, 8, and 9 area schools--public and
end available materials pre-paid. Call for any help, materials, or to
338.
ject ICE Bibliography in your school library for available Resource
Please offer suggestions, comments, or advice--at any time--so that this
Let's help each other.
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, feel, and act in harmony with our world.

Editorial Board

measurable mental skill, ability, or process based on factual data.
to student attitudes, values, and feelings.
able Performance Will Include (labels a cognitive or mental performance.)
al Problem Area.

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Dennis Bryan, UWGB

ESEA Title III - 59-70-0135-1 Project I-C-E

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1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area Lang

Subject Crea

Problem Orientation E

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Students through creative writing will state the important effects of the sun on nature. Affective: Children will defend the fact that things on the earth are dependent upon the sun's energy.	I. Student-Centered in class activity A. Pupil writing as Mr. Sun: "How do I effect things on earth from sunrise to sunset." 1. As the sun awakes and arises in the morning how does it effect a leaf, a child, a house, the grass, the air: at noon and at evening are the effects the same or does it change? B. Plants in room 1. One grown with the sun and the other without the sun.	II
Skills to be Learned Writing skills: Punctuation Capitalization Etc. Creative imagination		

sun, the basic source
onverted through
s into a form all
se for life pro-cesses.

Discipline Area Language Arts
Subject Creative Writing
Problem Orientation Energy Grade 5

	SUGGESTED LEARNING EXPERIENCES	
CTIVES	I. Student-Centered in class activity	II. Outside Resource and Community Activities
through l state s of the will things endent y.	A. Pupil writing as Mr. Sun: "How do I effect things on earth from sunrise to sunset." 1. As the sun awakes and arises in the morning how does it effect a leaf, a child, a house, the grass, the air: at noon and at evening are the effects the same or does it change? B. Plants in room 1. One grown with the sun and the other without the sun.	

Resource and Reference Materials	Continued and Additional Suggested
Publications: Film: Mr. Sun, Bell Telephone (1 hr.) Audio-Visual: Posters-bright colors Appropriate music-suggesting sunrise-sunset Music teacher and librarian could offer suggestions Community: Local photographer could talk about the sun-its impact on camera shots, photo-effects, etc.	

aterials	Continued and Additional Suggested Learning Experiences
(1 hr.)	
ting	
ian	
d	

C 2. All living organisms interact
O
N among themselves and their environment, Discipline Area Lang
C
E forming an intricate unit called an Subject Voca
P
T ecosystem. Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: Students will accurately match ecological terms & meanings with 90% accuracy. Affective: Student suggests ecological words and their meanings.	I. Student-Centered in class activity A. Teacher and students draw up a list of ecological words. (Suggested list on back) B. Together teacher and students look up definitions of words and discuss how they are used. If not completed in class, students will finish list on their own. C. Review all words and their definitions. Teacher gives matching test. D. The student looks for examples of these ecological terms in the home environment and reports the results to the class.
Skills to be Learned Environmental words and their meanings. Using these words.	

ng organisms interact

elves and their environment, Discipline Area Language Arts

intricate unit called an Subject Vocabulary

Problem Orientation Ecosystem Grade 5

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
tudents will tch ecological ngs with 90% tudent sug- cal words nings. Learned words and gs. ords.	I. Student-Centered in class activity A. Teacher and students draw up a list of ecological words. (Suggested list on back) B. Together teacher and students look up definitions of words and discuss how they are used. If not completed in class, students will finish list on their own. C. Review all words and their definitions. Teacher gives matching test. D. The student looks for examples of these ecological terms in the home environment and reports the results to the class.	II. Outside Resource and Community Activities A. Find use of words in newspapers, ads, and speeches.

Resource and Reference Materials	Continued and Additio
Publications:	Possible Words: 1. Environment 2. Survival 3. Ecology 4. Energy 5. Population 6. Culture 7. Value 8. Economic 9. Stewardship 10. Inherit 11. Deterioration 12. Interdependent 13. Interaction 14. Limitless 15. Distribute 16. Photosynthesis 17. Capacity 18. Manipulate
Audio-Visual: Non-verbal activities to reinforce abstractions- posters, collage, pantomime, skits, dance. Oral synonyms game. Illustrative: Free educational materials from: Local businesses Travel agencies DNR State Historical Society National Wildlife Federation	

nce Materials	Continued and Additional Suggested Learning Experiences
s to ons- anto- terials Society Federation	Possible Words: 1. Environment 2. Survival 3. Ecology 4. Energy 5. Population 6. Culture 7. Value 8. Economic 9. Stewardship 10. Inherit 11. Deterioration 12. Interdependent 13. Interaction 14. Limitless 15. Distribute 16. Photosynthesis 17. Capacity 18. Manipulate 19. Violate 20. Erosion 21. Pollution 22. Pesticide 23. Odor 24. Exhaust 25. Sewage 26. Radiation 27. Incinerate 28. Silt 29. Drainage 30. Litter 31. Beautify 32. Detergent 33. Decay 34. Bacteria 35. Aroma

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3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area Lang

Subject Log

Problem Orientation Carr

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: Students will observe how a sufficient supply of oxygen is necessary for fish to survive. Keep a daily log & evaluate it. Affective: The student supports that oxygen is a necessity for life in water; there is a limit to number of fish per square inch of water.	I. Student-Centered in class activity 1. Read about how to keep (gold)fish in school - upkeep, food. 2. Stock a fishbowl with one or two fish; then add one more at a time (several days apart) until it is noticeable that the fish are searching for oxygen by their continued rising to the top. 3. Keep a daily account (on critical days perhaps an hourly log) on reaction of fish, if notices of lack of oxygen are evident.	II. C
Skills to be Learned Notetaking Observing Setting up physical apparatus Evaluating data		

ntal factors are limiting

rs of organisms living

influence, thus, each

has a carrying capacity.

Discipline Area Language Arts

Subject Log Writing & Reporting

Problem Orientation Carry Capacity Grade 5

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
udents will sufficient en is neces- to survive. og & evalu- e student oxygen is r life in s a limit ish per water.	I. Student-Centered in class activity 1. Read about how to keep (gold)fish in school - upkeep, food. 2. Stock a fishbowl with one or two fish; then add one more at a time (several days apart) until it is noticeable that the fish are searching for oxygen by their continued rising to the top. 3. Keep a daily account (on critical days perhaps an hourly log) on reaction of fish, if notices of lack of oxygen are evident.	II. Outside Resource and Community Activities
earned ysical ta		

Resource and Reference Materials	Continued and Additional Sugge
Publications: Fish-keeping book Audio-Visual: Community: Visits by: Pet shop owner Fish hatchery representative Biology teacher	

ce Materials	Continued and Additional Suggested Learning Experiences
ntative	

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4. An adequate supply of pure water is essential for life.

Discipline Area L

Subject L

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: Using the first person, groups of 2 or 3 students will write their feelings of Mr. Water in its different forms. Affective: Students will support that water in its many different forms is essential for life.	I. Student-Centered in class activity 1. Class discusses water cycle(view film if handy). There is practically the same amount of water on the earth now as there was thousands of years ago. 2. Talk about different forms of Mr. Water... i.e., clouds, fog, dew, snow, rain, hail,ice, aquifier. 3. Class groups of 2 or 3 choose a water form and research their form of Mr. Water and write in first-person, their feelings of Mr. Water. SUGGESTIONS: Make illustrations to accompany their story and display them.
Skills to be Learned	
First-person creative writing Research	

adequate supply of pure
s essential for life.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation E.P.A. Water Grade 5

IORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Using the first oups of 2 or 3 ill write their f Mr. Water in its forms. Students will at water in its erent forms is for life.	I. Student-Centered in class activity 1. Class discusses water cycle(view film if handy). There is practically the same amount of water on the earth now as there was thousands of years ago. 2. Talk about different forms of Mr. Water... i.e., clouds, fog, dew, snow, rain, hail,ice, aquifier. 3. Class groups of 2 or 3 choose a water form and research their form of Mr. Water and write in first-person, their feelings of Mr. Water. SUGGESTIONS: Make illustrations to accompany their story and display them.	II. Outside Resource and Community Activities
be Learned.		
son creative		

Resource and Reference Materials	Continued and Additional Suggest
Publications: Busy Water, Irma Simonton Black, E 551.4 (water cycle described) B56 Wonders of Snow and Ice, Christie McFall 551.5 M163 Water for Your Community, Edward Radlauer 628.1 B 119 Dittoed excerpts from Rachel Carson's "The Sea Around Us" (some interesting sections about origins and chemistry of water - non-technical) Annotated Checklist of 200 Short Films for Writing Classes Illinois Assn. of Teachers of English, Urbana, Ill. 35¢ Audio-Visual "Waters From the Mountain," 16mm. sound, 20 min. (snow) Community:	

Materials	Continued and Additional Suggested Learning Experiences
on Black, e described)	
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Z,	
achel nd Us" ions istry of	
200 Short ses hers 1. 35¢	
in,"16mm.	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 5. An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Students will give campaign speech citing his solutions to air pollution problem. Affective: Through campaigning, the students will challenge the political complexity of an environmental issue.	I. Student-Centered in class activity 1. Conduct speech contest on "I am against air pollution because...When elected I will...(to stop air pollution)" 2. Have the children pretend they are running for office(as mayor or other local office) and they must convince their audience that "I am against air pollution because....and when I am elected I will...(do what to stop air pollution)" After speeches the class will cast ballots and vote for their best candidate. 3. Winning candidate might give his report to other classes. SUGGESTIONS FOR PREPARATION: 4. Tape speeches to be replayed by individuals for self exam of speech skills or judged by local (cont.)
Skills to be Learned Organization and compiling a speech. Oral presentation as competition. Techniques of balloting and voting.	

uate supply of clean air is
because most organisms depend Discipline Area Language Arts
tion to supply the oxygen Subject Speech
release the energy in their Problem Orientation E.P.A. Air Grade 5

ORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
tudents will give ech citing his air pollution hrough campaign- dents will e political f an environ- .	I. Student-Centered in class activity 1. Conduct speech contest on "I am against air pollution because...When elected I will...(to stop air pollution)" 2. Have the children pretend they are running for office(as mayor or other local office) and they must convince their audience that "I am against air pollution because....and when I am elected I will...(do what to stop air pollution)" After speeches the class will cast ballots and vote for their best candidate. 3. Winning candidate might give his report to other classes. SUGGESTIONS FOR PREPARATION: 4. Tape speeches to be replayed by individuals for self exam of speech skills or judged by local (cont.)	II. Outside Resource and Community Activities.
Learned n and compiling tation as of balloting		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Vital speeches-periodical excerpts or dittoed parts of speeches dealing with ecology. HEW - reports, speeches by Sec. Udall. Silent Spring (excerpts) Robert Carson Thirty Basic Speech Experiences - Clark Publishing Co, Pokatello, Idaho 4-H Form for judging speaking contests - 4-H Soil and Water Conservation.	I. (cont.) people.
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
al excerpts eeches by Sec.) lo, eaking d	I. (cont.) people.

C O N C E P T	6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.	Discipline Area Lar Subject Dia Problem Orientation Nat Res

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: By the means of a diary, the student will record their observation of birds & related conditions on given days. Affective: Through the gathering of information and recording of data, the student will suggest reasons for the varying number & species of birds per day.	I. Student-Centered in class activity 1. After outside observations, the children come back inside to write their observations in a first-person diary (first person diary may have to be explained to class by teacher-with examples.) The diary should consist of an 8-page booklet-left half of page for diary & right half for pictures of birds observed that day. (The first day may take more time to construct a booklet-could use a regular 8 1/2 x 11" sheet of paper folded in half for one day's work. The diary should be a personal possession and neither teacher nor other students may read it if so wished by writer.	II.
Skills to be Learned Observing birds weather seasons Writing a first-person diary		

ces are not equally
the earth or over
affect the geographic
uality of life.

Discipline Area Language Arts
Subject Diary
Problem Orientation Natural Resources Grade 5

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. After outside observations, the children come back inside to write their observations in a first-person diary (first person diary may have to be explained to class by teacher-with examples.) The diary should consist of an 8-page booklet-left half of page for diary & right half for pictures of birds observed that day. (The first day may take more time to construct a booklet-could use a regular 8 1/2 x 11" sheet of paper folded in half for one day's work.

The diary should be a personal possession and neither teacher nor other students may read it if so wished by writer.

II. Outside Resource and Community Activities

1. Teacher explain that this is a project that will take place on the Mondays of April & May (day or months may change to suit class schedule.)

The first fifteen minutes the children will go outside looking for birds (Their color, sounds, habits, name) and also note any significant weather conditions that might explain why there are so many birds or the lack of birds on each particular Monday.

The children may wish to take notes while outside if they don't think they can remember all the information.

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Library books on birds Hooked on Books, Dr. Foder, chapter on "The Journal". Audio-Visual: Bird chart Tapes of bird songs - National Wildlife or Audubon Community:	

nce Materials	Continued and Additional Suggested Learning Experiences
ds Foder, rnal".	
- National	

CONCEPT 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Language Ar

Subject Expository

Problem Orientation Land Use

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPER	
Cognitive: Through use of film or field trip, students write their impressions on how highways change the use of the land. Affective: Students dispute the question of the basic necessity of good land use.	I. Student-Centered in class activity	II. Outsid Communi A. Intr (eith or ru of fi Peopl local enorm for h B. With write these C. Each impre class, comme D. Clas come concl
Skills to be Learned Expository writing Questinning Discussion Draw conclusions		

s such as facilitating transportation,

conditions, population growth, Discipline Area Language Arts

ased leisure time have a great Subject Expository Writing

on changes in land use and Problem Orientation Land Use Grade 5

f population density.

ORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Through use of ld trip, students impressions on s change the use . Students dispute n of the basic f good land use. e Learned writing g usions	I. Student-Centered in class activity	II. Outside Resource and Community Activities A. Introduction of land use (either for highway exchange or rural work land) by means of film Highways are For People or by a field trip to local express exchange to see enormous amount of land used for highways. B. Without discussion, students write their impressions of these types of land use. C. Each student reads his impression out loud. Rest of class asks questions or adds comments. D. Class tries to summarize or come up with a general conclusion of their impression.

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: National Safety Council, AAA	
Audio-Visual: Film: Highways Are For People, 1968, 16 mm, Sound, 27 min., Federal Highway Administration	
Community: Road Commissioner or good representative	

erials	Continued and Additional Suggested Learning Experiences
AA	
968,	
ration	

C 8. Cultural, economic, social, and
O
N political factors determine status
C
E of man's values and attitudes
P
T toward his environment.

Discipline Area Langua
Subject Readin
Problem Orientation Food C

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Students will list in order the food chain of an animal and describe the effect that takes place if this chain is broken. Affective: The child submits evidence that interference with any single segment of any chain of living things can cause problems.	I. Student-Centered in class activity 1. Teacher introduces the lesson quoting John Muir: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." natural resources. 2. Children - Think, then write down the chain of dependency.	II. Ou Com 1. go ob de ki Wh Po Sh
Skills to be Learned Logical thinking Thinking in sequence Cause & effect	3. Class discussion to agree or disagree with John Muir. 4. Teacher reads part of America's Endangered Wildlife to the class.	

economic, social, and

ctors determine status — Discipline Area: Language Arts

ues and attitudes — Subject: Reading

nvironment. — Problem Orientation: Food Chain — Grade: 5

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
udents will the food imal and ffect that this chain e child ce that ith any of any g things lems.	I. Student-Centered in class activity 1. Teacher introduces the lesson quoting John Muir: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." natural resources. 2. Children - Think, then write down the chain of dependency. 3. Class discussion to agree or disagree with John Muir. 4. Teacher reads part of America's Endangered Wildlife to the class.	II. Outside Resource and Community Activities 1. Use the out-of-doors or go to school windows to observe the chain of dependency. Ex. - The killing off of the fox - What happens to the rabbits? Porcupines? Squirrels? Mice? Shrews? etc.
earned ing equence t		

Resource and Reference Materials	Continued and Additional Suggeste
Publications: America's Endangered Wildlife by George Laycock.	
Audio-Visual: Audubon Food Chain chart	
Community: National Wildlife Federation (publications) National Audubon Society	

als	Continued and Additional Suggested Learning Experiences
by	

6

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area

Subject

Problem Orientati

BEHAVIORAL OBJECTIVES	SUGGESTED LEA
Cognitive: Given a wildlife stamp the students through creative writing, will express their ideas on a pollution free environment as is illustrated in the stamps. Affective: The student will volunteer to express his creative ideas about the stamps. Skills to be Learned Creative writing	I. Student-Centered in class activity A. Teacher or pupil places conservation stamps (National Wildlife) on front table. 1. Each child chooses an one of the group. 2. Child pastes this on writing or composition paper. 3. Teacher suggests the children to now write a poem, paragraph, story or just write statements about their stamp. 4. Display these papers.

al, economic, social, and

factors determine status — Discipline Area Language Arts

values and attitudes — Subject Creative Writing

s environment. — Problem Orientation Attitudes Grade 5

ORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Given a wildlife tudents through iting, will ir ideas on a ree environment trated in the The student will o express his eas about the e Learned riting	I. Student-Centered in class activity A. Teacher or pupil places conservation stamps (National Wildlife) on front table. 1. Each child chooses any one of the group. 2. Child pastes this on writing or composition paper. 3. Teacher suggests the children to now write a poem, paragraph, story or just write statements about their stamp. 4. Display these papers.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sugge
Publications:	
Audio-Visual: National Wildlife Stamp or any colorful stickers Start a picture library and thus involve students	
Community: Audubon Society National Geographics Wis. Historical Society	

aterials	Continued and Additional Suggested Learning Experiences
r any nd thus	

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9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area Languag

Subject Speech

Problem Orientation Nat Res

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: By writing & presenting a speech for a radio presentation, the students will acknowledge their part in managing their environment. Affective: The students will promote individual & community involvement in environmental problems by presenting a radio broadcast.	I. Student-Centered in class activity A. Classroom activity 1. Teacher & students plan what can be presented as a radio environment program: a. Local problem areas b. Ways children of all ages can get involved c. Community involvement 2. Each student writes his view of one of the above topics to be used as a speech. 3. Speeches are taped (to prevent individual favoritism) & then listened to by class to choose the ones to be used as the radio broadcast. 4. Students practice presentations on tapes. 5. Possibly, the children could write words to a familiar tune to open & close the program.	II.
Skills to be Learned Speech writing Tape presentation Poetry writing (to song) Feeling of pride in their community		

has the ability to manage,
ate, and change his
ment.

Discipline Area Language Arts
Subject Speech Writing & presentation
Problem Orientation Natural Resources Grade 5

VIORAL OBJECTIVES
: By writing &
g a speech for
presentation, the
will acknowledge
t in managing
ironment.
: The students
note individual &
involvement in
ental problems by
g a radio broad-

o be Learned
riting
esentation
riting (to song)
of pride in
community

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom activity
    1. Teacher & students plan what can be presented as a radio environment program:
      a. Local problem areas
      b. Ways children of all ages can get involved
      c. Community involvement
    2. Each student writes his view of one of the above topics to be used as a speech.
    3. Speeches are taped (to prevent individual favoritism) & then listened to by class to choose the ones to be used as the radio broadcast.
    4. Students practice presentations on tapes.
    5. Possibly, the children could write words to a familiar tune to open & close the program.

II. Outside Resource and Community Activities
  A. Other activity
    1. Have some of the students contact the radio station to see if they can come to school or if they may go to the studio.

Resource and Reference Materials	Continued and Additional Suggested L
Publications: 30 Basic Speech Experiences, Clark Publishing Co. Audio-Visual: Community: Local radio announcer	

terials	Continued and Additional Suggested Learning Experiences
s,	

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Langu

Subject Writi
Re

Problem Orientation Us

BEHAVIORAL OBJECTIVES

Cognitive: By writing a before and after account of a forest logging operation, the student will realize that a short-time gain may produce a long-term environmental loss.
Affective: Students will compare short-term gains and long-term effects of forest management.

Skills to be Learned
Discussion
Writing
Making comparisons
Skill of foresight

SUGGESTED LEARNING

I. Student-Centered in class activity
   A. Classroom
      1. Teacher & students discus a hypothetical situation where maple lumber is sudde in great demand (for some r product). I, as an owner o large maple forest, have a chance to make a great deal money if I harvest all the maple trees in my woods. M neighbors are convinced of same thing, so we contract logging firm to cut all ou trees.
      2. Class discussion as to wh may be the implications of such a procedure.
      3. Write a "before and after account of the area.
      4. The students may want to a sketch of "before and af view of the area.

t-term economic gains may

long-term environmental

Discipline Area Language Arts

Subject Writing

Problem Orientation Resource Usage Grade 5

IORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
By writing a after account of ogging operation, t will realize rt-time gain may long-term tal loss. Student will ort-term gains erm effects of agement.	I. Student-Centered in class activity A. Classroom 1. Teacher & students discuss a hypothetical situation where maple lumber is suddenly in great demand (for some new product). I, as an owner of a large maple forest, have a chance to make a great deal of money if I harvest all the maple trees in my woods. My neighbors are convinced of the same thing, so we contract a logging firm to cut all our trees. 2. Class discussion as to what may be the implications of such a procedure. 3. Write a "before and after" account of the area. 4. The students may want to draw a sketch of "before and after" view of the area.	II. Outside Resource and Community Activities
be Learned n mparisons foresight		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Conservation, Nat'l Wildlife College of Agriculture bulletins, County Forester Office Audio-Visual: Film: Brown County Library, 8 min., Forest Murmurs, Color Filmstrip: Brown County Library, Enemies of the Forest, 634.9 Forest Conservation, 634.9 Our Forest & What they Mean to Us, 634.9 Community:	

Materials	Continued and Additional Suggested Learning Experiences
dlife bulletins,	
8 min.,	
Enemies of	
634.9	
y Mean to	

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CONCEPT 11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language

Subject Writing

Problem Orientation Ener

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	
Cognitive: Through recognition of air pollution by identification of three air pollutants-by smelling, seeing and feeling-students write their opinions on how these affect them. Affective: The heat and rays of the sun could be stopped by a blanket of earth's pollutants. Students will evaluate how this affects them.	I. Student-Centered in class activity 1. Teacher and students present ideas of sun's rays not being able to reach the earth. Why? 2. Discuss: a. known pollutants-clouds, smog, smoke from chimneys b. how they affect me and my neighbors - sight, smell, health 3. Write their thoughts on pollution and its affects on the sun and us.	II. Ou Com 1. L t 2. c m r 3. l n
Skills to be Learned Writing of opinions Discussion		

al acts, duplicated
d, produce significant
l alterations over time.

Discipline Area Language Arts
Subject Writing
Problem Orientation Energy Grade 5

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ough air dentification ollutants-by ng and feel- rite their w these heat and n could be lanket of ants. evaluate ts them.	I. Student-Centered in class activity 1. Teacher and students present ideas of sun's rays not being able to reach the earth. Why? 2. Discuss: a. known pollutants-clouds, smog, smoke from chimneys b. how they affect me and my neighbors - sight, smell, health 3. Write their thoughts on pollution and its affects on the sun and us.	II. Outside Resource and Community Activities 1. How clear is the air. Look at pollution and their causes. 2. Interview local factory owner, farmer and Department of Natural Resource representative. 3. Visit fertile and polluted land plots - near school, nearby farm.
Learned inions		

Resource and Reference Materials	Continued and Additional Sugge
Publications:	
Audio-Visual: Photographs Local slides-student made Three dimensional model of land plot-student made and illustrated with graphic-polluted effect.	
Community: Interview local	

erials	Continued and Additional Suggested Learning Experiences

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12. Private ownership must be regarded as a stewardship and should not encrouch upon or violate the individual right of others.

Discipline Area Language Art

Subject Language Art

Problem Orientation Conservati

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIE	
Cognitive: The students will survey an area, report their findings to the class, discuss the issue and finally list ways to remedy a situation where private ownership should be regarded as a stewardship and should not encroach upon or violate the individual right of others. Affective: Students will share pleasure and satisfaction in resolving an issue after class discussion especially on stewardship.	I. Student-Centered in class activity 1. Discussion could follow reports on outside activities to list ways they as fifth graders could remedy this abuse.	II. Outsid Communi 1. Stud of la 2. Stud city given a cit see h of bi 3. Repo the c
Skills to be Learned Surveying Discussion Listing Report of statistics		

ownership must be re-
stewardship and should
upon or violate
al right of others.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Conservation Grade 5

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
students area, report to the the issue t ways to ion where ip should a steward- not en- violate the t of dents will and resolving class ecially on	I. Student-Centered in class activity 1. Discussion could follow reports on outside activities to list ways they as fifth graders could remedy this abuse.	II. Outside Resource and Community Activities 1. Students make a survey of lawns in a given area. 2. Students living in the city could be assigned a given area (for example, a city block) to check to see how many find examples of bicycle abuse of lawns. 3. Report their findings to the class.
earned stics		

Resource and Reference Materials	Continued and Additional Suggeste
Publications:	
Audio-Visual: Bicycling riding film- The Day the Bicycle Disappeared AAA Foundation for Traffic for Safety (Local automobile clubs)	
Community: Local park commissioner or street commissioner "Victims" of bicycle damage (local person on block whose lawn has been damaged.)	

erence Materials	Continued and Additional Suggested Learning Experiences
film- *le Disappeared* or Traffic for tomobile clubs)	
sioner or her cle damage block whose naged.)	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish to format. Please feel free to adapt it and add more pages. Let us kn comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
(specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

on each episode used in your class, you may wish to duplicate this suggested feel free to adapt it and add more pages. Let us know all your critiques and ive and positive.

Objectives
e:

e:

loped

earning Experiences
:

& Community Activities

esource & Reference Materials
uggestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONM

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 6

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
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Robert Wa
Robert Ke
George Ho

E INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 6

Title III E.S.E.A.

in CESA's 3-8-9
t
onsin 54301

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help is re
of over a hundred teachers, year long meetings, a summer workshop, u
ecologists, this guide means realistic, developed aid for you. Plea
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are design
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your stu
   to adapt, adopt, or use. By design, the range of suggestions is w
   mentation and usage are even wider. Many episodes are self-contai
   others can be changed in part or developed more keenly over a few
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning expe
   plan. The reasons are simple. No guide has all the answers and
   unless viewed in the context of your classroom situation. Thus,
   give it a triple reading, check over the resources listed, make m
   prime your students, and seek help. The Project personnel and tea
   knowledgement page stand ready to aid your efforts. Feel free to
4. The Project Resource Materials Center serves all CESA 3, 8, and 9
   private. We will send available materials pre-paid. Call for an
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library f
   Center materials. Please offer suggestions, comments, or advice-
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch id
   suggestions on the episode pages or use the attached evaluation f
   lected in late May next year and will be used in our revisions. W
   reactions and suggestions--negative and positive. Please note tha
   in the episodes may refer to specific, local community resources
   cases, individual school districts and teachers will have to adop
   stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survival-
   Creation's beauty and complexity--often noted as the work of a ge
   and human energy to save. A year's work by a hundred of your fel
   gesture. Without you, their work will crumble, and so might we a
   let us live to think, feel, and act in harmony with our world.

---

1. Cognitive means a measurable mental skill, ability, or process
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cogni
4. EPA - Environmental Problem Area.

PREFACE

o excite students about their environment, help is ready. Thanks to the efforts
ed teachers, year long meetings, a summer workshop, university consultants and
s guide means realistic, developed aid for you. Please note the following ideas
cted teachers in writing and editing this guide.
s supplementary in nature and the episodes are designed--at appropriate instan-
into existing, logical course content.
episode offers suggestions. Since you know your students best, you decide what
lopt, or use. By design, the range of suggestions is wide; your chances for experi-
d usage are even wider. Many episodes are self-contained, others open-ended, still
e changed in part or developed more keenly over a few weeks. These built-in
s allow you to explore.
that you try the episodes and suggested learning experiences but please pre-
easons are simple. No guide has all the answers and no curriculum will work
d in the context of your classroom situation. Thus, before trying an episode,
iple reading, check over the resources listed, make mental and actual notes,
tudents, and seek help. The Project personnel and teachers listed on the ack-
t page stand ready to aid your efforts. Feel free to ask their help in pre-planning.
Resource Materials Center serves all CESA 3, 8, and 9 area schools--public and
will send available materials pre-paid. Call for any help, materials, or to
e 432-4338.
the Project ICE Bibliography in your school library for available Resource
ials. Please offer suggestions, comments, or advice--at any time--so that this
grow. Let's help each other.
self with the guide by reacting to it with scratch ideas, notes, and extended
on the episode pages or use the attached evaluation format, which will be col-
te May next year and will be used in our revisions. We sincerely want your
d suggestions--negative and positive. Please note that some resources listed
des may refer to specific, local community resources or conditions. In such
idual school districts and teachers will have to adopt local or available sub-
list of terms pertinent to the episodes is below.
nd other experts have simplified the issue--survival--yours, mine, our students,
eauty and complexity--often noted as the work of a genius--will take our genius
ergy to save. A year's work by a hundred of your fellow teachers is a saving
thout you, their work will crumble, and so might we all--literally. Instead,
to think, feel, and act in harmony with our world.

Editorial Board

means a measurable mental skill, ability, or process based on factual data.
refers to student attitudes, values, and feelings.
Acceptable Performance Will Include (labels a cognitive or mental performance.)
ironmental Problem Area.

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C 1. Energy from the sun, the basic source;
O
N of all energy, is converted through
C
E plant photosynthesis into a form all
P
T living things can use for life processes.

Discipline Area Lan
Subject Wri
Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: The student will demonstrate the proper letter writing form by writing a letter to Mr. Sun. Affective: Students will identify with the life giving forces of the sun. The student will accept the sun's work in spite of man's desires.	I. Student-Centered in class activity A. Discuss form for letter writing-(friendly letter) B. Review in group discussion, our dependence on the sun. C. View film or appropriate filmstrip-charts. D. Write a letter to Mr. Sun, choice: 1. Expressing appreciation of what he does. 2. Expressing dissatisfactio over disrupted plans. 3. Relating any experience i which you and the sun were involved. 4. Requesting a specific kin of weather. 5. Relating to the sun something you know about him.
Skills to be Learned Letter Writing Review of Paragraphs Punctuation Spelling Penmanship	

the sun, the basic source;
is converted through
thesis into a form all
can use for life processes.

Discipline Area Language Arts
Subject Writing - Letter Writing
Problem Orientation Energy Grade 6

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
student e the proper form by r to Mr. Sun. dents will he life f the sun. l accept in spite s. arned	I. Student-Centered in class activity A. Discuss form for letter writing-(friendly letter) B. Review in group discussion, our dependence on the sun. C. View film or appropriate filmstrip-charts. D. Write a letter to Mr. Sun, choice: 1. Expressing appreciation of what he does. 2. Expressing dissatisfaction over disrupted plans. 3. Relating any experience in which you and the sun were involved. 4. Requesting a specific kind of weather. 5. Relating to the sun something you know about him.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested
Publications: Books: English text for 6th grade, for letter form. Science texts. Encyclopedias. Audio-Visual: Our Mr. Sun, film-Bell Telephone Any appropriate filmstrips Any appropriate charts Community:	

erials	Continued and Additional Suggested Learning Experiences
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hone	

CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area Language
Subject Critical
Problem Orientation Eco

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: Through the use of reference skills and critical reading, the child will list 5 different examples in which animals interact among themselves to provide a balance in nature. Affective: Animals are part of a food chain. Critical reading and reference skills enhance avenues to further investigate the interaction of animals to maintain an intricate unit called an ecosystem.	I. Student-Centered in class activity A. Classroom 1. Discuss how animals depend on each other for a food source. Select an animal & investigate what it eats & what it is a prey of. 2. Use reference material within room to investigate food chain. B. Compare what was discovered on field trip to findings from library work. Discuss similarities & differences.
Skills to be Learned One goal in reference skills is to go to more than one source. Since animals are both predators & prey, a student must research more information about the interaction among animals. Read critically.	

ESEA Title III - 59-70-0135-1 Project I-C-E

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their environment,

icate unit called an

Discipline Area Language Arts

Subject Critical Reading & Reference

Problem Orientation Ecosystem Grade 6

BJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. Discuss how animals depend on each other for a food source. Select an animal & investigate what it eats & what it is a prey of.
    2. Use reference material within room to investigate food chain.
  B. Compare what was discovered on field trip to findings from library work. Discuss similarities & differences.

II. Outside Resource and Community Activities
  A. Library
    1. Go to reference material to check food chain of animals.
    2. Write reports on the types of animals that are prey to particular animals, & what animals are its predators.
  B. Community
    1. Visit a zoo, farm, fish hatchery & have guided tour. Discuss the food chain of animals found in area.
  C. Have a game warden visit the classroom & discuss the intricate food chain necessary to maintain life. Explain why people are allowed to hunt animals such as deer. Discuss what would happen if deer were not killed off by hunters.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Encyclopedia Card catalog Magazines **Audio-Visual:** **Community:** State Historical Society Wildlife Federation DNR	

ce Materials	Continued and Additional Suggested Learning Experiences
ety	

CONCEPT

3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area L

Subject S

Problem Orientation Ca

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The class will compose a yes and no questionnaire on the issue of the deer party permit in their state and evaluate the summary. Affective: The student will argue pro or con that deer party permits are issued according to the carrying capacity of the area.	I. Student-Centered in class activity 1. Discuss the issues whether a party permit for hunting deer should be allowed in the state of Wisconsin. 2. Pupils prepare a questionnaire that could be answered with yes & no about the issue. 3. Each student should take one or more questionnaires to different people in their home & community. 4. Each student will write his own evaluation of the survey. 5. Some students will write an article for the school or local newspaper.	II
Skills to be Learned Class discussion Comparing questions for yes & no answers Making a survey Evaluating information in paragraph form.		

ental factors are limiting

ers of organisms living Discipline Area Language Arts

r influence, thus, each Subject Survey

has a carrying capacity. Problem Orientation Carry Capacity Grade 6

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
he class will and no ques- the issue of y permit in nd evaluate he student o or con ty permits cording to capacity of	I. Student-Centered in class activity 1. Discuss the issues whether a party permit for hunting deer should be allowed in the state of Wisconsin. 2. Pupils prepare a questionnaire that could be answered with yes & no about the issue. 3. Each student should take one or more questionnaires to different people in their home & community. 4. Each student will write his own evaluation of the survey. 5. Some students will write an article for the school or local newspaper.	II. Outside Resource and Community Activities 1. Students will tabulate the results of the questionnaire.
Learned ssion estions for wers vey nformation form.		

Resource and Reference Materials	Continued and Additional Sugges
Publications: National Wildlife Magazine, White-Tailed Deer Audio-Visual: Films available from the Department of Natural Resources Community: Representative from a local Sportsman Club Representative from the Game Management Division	

nce Materials	Continued and Additional Suggested Learning Experiences
gazine,	
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a b the ision	

CONCEPT

4. An adequate supply of pure water is essential for life.

Discipline Area

Subject

Problem Orientat

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Through researching and formal speaking, the child will demonstrate and project four ways in which life patterns are formed by the distribution of water supply. Affective: Formal speaking requires necessary research into the subject matter to have a better understanding of the subject. This provides a method by which the student proposes the importance of pure water supply on all living things.	I. Student-Centered in class activity 1. Read material on the water cycle. 2. Research areas that are desert and those that have adequate water supply. Find types of life found in each. Example: camel - its adaptations. 3. Discuss how animal communities survive in areas around a water body such as pond or river. 4. Discuss how cities are located on or near a source of water. Discuss how the sanitation department must continually check quality of water. 5. Assign after researching effects of water supply--student will present a chart talk on how water affects a certain type animal in its living habits. The child may use only note cards.
Skills to be Learned	
Artificial analysis of the importance of proper water supply would be necessary. From that point, reference and research skills would be necessary. The data collected would have to be put into logical order to present speech to class.	

dequate supply of pure water
ntial for life.

Discipline Area Language Arts
Subject Oral report
Problem Orientation E.P.A. Water Grade 6

IORAL OBJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Read material on the water cycle.
2. Research areas that are desert and those that have adequate water supply. Find types of life found in each. Example: camel - its adaptations.
3. Discuss how animal communities survive in areas around a water body such as pond or river.
4. Discuss how cities are located on or near a source of water. Discuss how the sanitation department must continually check quality of water.
5. Assign after researching effects of water supply--student will present a chart talk on how water affects a certain type animal in its living habits. The child may use only note cards.

II. Outside Resource and Community Activities
1. Send child to library to gain further information on animal they are researching.
2. Have conservationist talk to class on animal life around water supply.
3. Take class to river bank or small pond and examine an animal life or footprints and make molds. Examine and classify to appropriate animal.
4. Take field trip to sanitation department and explore necessary water treatment facilities.
5. In Fall, take trip to Fox River and note water pollution in process.

Resource and Reference Materials	Continued and Additional Sugges
Publications:	
Audio-Visual:	
Community: Library Local resources	

terials	Continued and Additional Suggested Learning Experiences

C O N C E P T

5. An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food.

Discipline Area La

Subject Cr

Problem Orientation E.P

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	
Cognitive: Through the use of a T.V. commercial technique, visually demonstrate to the students the significance of air pollution. Affective: The student will promote the fact that air pollution is a big problem and is everyone's responsibility.	I. Student-Centered in class activity 1. Brainstorm kinds of air pollution (put on board). 2. Divide class into groups of 3 or 4. 3. Each group picks one kind of air pollution. 4. Each group will demonstrate a T.V. commercial on a paper scroll shown through a cardboard box T.V. set. Any form of creative writing could be used as the verbial part of the commercial such as poetry, songs (original), narration. Drawings could be in color or black and white.	II. C Co
Skills to be Learned Creative Writing Convincing someone of the significance of an issue. Power of persuasion.		

te supply of clean air is
cause most organisms de-
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d to release the energy
d.

Discipline Area Language Arts
Subject Creative Writing-graphic
Problem Orientation E.P.A. Air Grade 6

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Brainstorm kinds of air pollution (put on board).
2. Divide class into groups of 3 or 4.
3. Each group picks one kind of air pollution.
4. Each group will demonstrate a T.V. commercial on a paper scroll shown through a cardboard box T.V. set.

Any form of creative writing could be used as the verbial part of the commercial such as poetry, songs (original), narration. Drawings could be in color or black and white.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggest
Publications: Magazines Newspapers Pamphlets Conservation Dept. D.N.R. Audio-Visual: Previous to activity watch commercials at home and observe: Type of message Length of message Impact of message Type of graphic Community:	

aterials	Continued and Additional Suggested Learning Experiences
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6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area La

Subject Cr

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Problem Orientation Re

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Through research & critical writing, the child will compare & contrast two communities, one affluent & one deprived, such as the Fox River Valley and Upper Michigan. Affective: The child will, by researching two completely different geographic areas, demonstrate that he is able to critically analyze how man is dependent on the various geographic conditions peculiar to the region.	I. Student-Centered in class activity 1. Discuss how communities are dependent on the geographic conditions, such as paper making on the Fox River, farming in well-irrigated lands, recreation in wilderness areas. 2. Make bulletin board display on ways man is dependent on the type of conditions within 2 completely different regions. Exchange of letters with other 6th grade students of different areas. 3. Have students write a report on ways people differ in the two areas selected by individuals. Students should not be allowed to copy from book, but instead use all resources they included by means of notetaking. 4. Use reference material such as encyclopedias, atlas, etc. to compare & contrast two different regions. Also use the series of books on the states.	II.
Skills to be Learned Researching is an intricate part of comparing & contrasting. The student must read critically about two diverse regions & find similarities & differences caused by geographic conditions in order to analyze critically.		

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Discipline Area Language Arts

Subject Critical Writing

Problem Orientation Natural Resources Grade 6

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Discuss how communities are dependent on the geographic conditions, such as paper making on the Fox River, farming in well-irrigated lands, recreation in wilderness areas.
2. Make bulletin board display on ways man is dependent on the type of conditions within 2 completely different regions. Exchange of letters with other 6th grade students of different areas.
3. Have students write a report on ways people differ in the two areas selected by individuals. Students should not be allowed to copy from book, but instead use all resources they included by means of notetaking.
4. Use reference material such as encyclopedias, atlas, etc. to compare & contrast two different regions. Also use the series of books on the states.

II. Outside Resource and Community Activities

1. Invite a foreign exchange student to speak to class on how people in his country have adjusted to their environment.
2. Have agriculture agent speak to class on how a farmer within the state adjusts his crop growth to water supply, soil quality, & weather conditions.
3. Have students interview people within the community to see how they are dependent on the geographic conditions of the area.

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Encyclopedias Book series on states **Audio-Visual:** **Community:** Chamber of Commerce (write for information of both locations on ways of people depending on geographic conditions) Agriculture agent (Ways farmers depend on geographic condition & water supply) County agent Water department head County Forester	

Materials	Continued and Additional Suggested Learning Experiences
te n eople s farmers ondition	

CONCEPT 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Langua

Subject Creati

Problem Orientation Po

BEHAVIORAL OBJECTIVES

Cognitive: Through creative writing, the child will demonstrate and project 4 changes in the balance of nature necessary if America's population doubled.

Affective: The student will defend his position on the harmful effects of overpopulation.

Skills to be Learned

Critical thinking of necessary balance in nature, and creative thinking of result of imbalance.

Research of overpopulated areas would be essential.

SUGGESTED LEARNING

I. Student-Centered in class activity
  A. Class
    1. Discuss what would happen if a local city doubles in population
      a. sacrificed wants.
      b. sacrificed needs.
      c. sanitation problems.
    2. Plant 2 communities of radish seeds. Observe growing patterns. Discuss how people would react similarly to the plants.
    3. Discuss what would happen to the natural resources.

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Discipline Area Language Arts
Subject Creative Writing
Problem Orientation Population Grade 6

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class
    1. Discuss what would happen if a local city doubles in population
      a. sacrificed wants.
      b. sacrificed needs.
      c. sanitation problems.
    2. Plant 2 communities of radish seeds. Observe growing patterns. Discuss how people would react similarly to the plants.
    3. Discuss what would happen to the natural resources.

II. Outside Resource and Community Activities
  A. Library
    1. Locate books about countries with overpopulation (China, India).
    2. Locate books about pioneer days and the environment.
  B. Community
    1. Visit sanitation department to find out about present population problems. Visit other community helpers and have them discuss the importance of their job.
    2. Visit a farm with a conservation officer to discuss the intricate balance of nature.

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Excerpts from Silent Spring Rachael Carson or Since Silent Spring Audio Visual: Movie #4050 Food, clothing, and shelter in their environment. Color. B.A.V.I. p.9. Community:	

terials	Continued and Additional Suggested Learning Experiences
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C 8. Cultural, economic, social and
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N political factors determine status
C
E of man's values and attitudes
P
T toward his environment.

Discipline Area Langua

Subject Langua

Problem Orientation Attitu

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Through the study of various forms of communication including verbal & nonverbal, each student will list a minimum of 4 ways that cultural, economic, social and political factors determine man's values and attitudes toward his environment. Affective: Students will investigate the fact that many factors influence man's attitude toward his environment and man expresses these through all forms of communication which we will divide into 2 groups, verbal and nonverbal.	I. Student-Centered in class activity 1. Oral discussion listing all the different ways that man can communicate - including those not in use anymore ex.-smoke signals. Have students list on board. 2. Evaluate student's work through an oral test (Verbal Communication) listing the different attitudes and values toward environment that they became aware of through their interviews.	II. Ou Com 1. 3 ba va th co ba 2. by lo & bu so pi Th fa ot
Skills to be Learned Discussion Interview		

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Discipline Area Language Arts
Subject Language Arts
Problem Orientation Attitudes Grade 6

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Oral discussion listing all the different ways that man can communicate - including those not in use anymore ex.-smoke signals. Have students list on board.
2. Evaluate student's work through an oral test (Verbal Communication) listing the different attitudes and values toward environment that they became aware of through their interviews.

II. Outside Resource and Community Activities

1. Have students interview 3 to 5 people of different backgrounds on their feelings, values & attitudes toward their environment and their concern in maintaining a balanced ecosystem.
2. Demonstrate to students by taking a field trip to a local park or recreation area & without verbal communication but by actions, try to do something specific such as picking up litter, etc. They can influence in a favorable way the actions of others.

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Audio-Visual: Community:	

terials	Continued and Additional Suggested Learning Experiences

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9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area Languag

Subject Drama

Problem Orientation Cons

BEHAVIORAL OBJECTIVES

Cognitive: Through dramatization, each student will demonstrate one specific need of man & one specific want that is not essential to life.

Affective: The student will distinguish between the wants & needs of man.

Skills to be Learned

Dramatization
Discussion
Comparing

SUGGESTED LEARNING EX

I. Student-Centered in class activity
  A. Classroom activity
    1. Discuss the differences between wants & needs.
    2. List on board the items that are man's wants & those that are man's needs.
    3. Discuss ways in which man has damaged or destroyed his environment through striving for luxuries.
    4. Compare primitive man to modern man & point out differences in life style.
    5. Assignment: From the list of wants & needs have the students select one of each to dramatize before the group.

ability to manage,

change his

Discipline Area Language Arts

Subject Drama

Problem Orientation Conservation Grade 6

BJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom activity
    1. Discuss the differences between wants & needs.
    2. List on board the items that are man's wants & those that are man's needs.
    3. Discuss ways in which man has damaged or destroyed his environment through striving for luxuries.
    4. Compare primitive man to modern man & point out differences in life style.
    5. Assignment: From the list of wants & needs have the students select one of each to dramatize before the group.

II. Outside Resource and Community Activities
  A. Enrichment & Expanded Activities
    1. Groups will volunteer & develop skits, one dealing with life with only needs and one with depicting life with abundant wants. Compare to life style.
    2. Discuss finding a balance between wants & needs to safe guard our environment.
  B. Library
    1. Select material on various societies & compare to our society.
    2. Read about pioneers & compare their wants to the wants of society today.

Resource and Reference Materials	Continued and Additional Suggested
Publications:	
Audio-Visual: Film: Neighbors, as described in An Annotated Checklist of 200 Short Films for Writing Classes, available from Ill. Assoc. of Teachers of English, Urbana, Ill. for 35¢	
Community:	

erials	Continued and Additional Suggested Learning Experiences
200 lasses, . of na,	

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Language A

Subject Drama

Problem Orientation Land U

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Through dramatization the child will demonstrate ways in which man's desire for economic gains have produced long-term environmental losses. Affective: The child will offer evidence of the need for the preservation of our natural resources.	I. Student-Centered in class activity A. Classroom 1. Have each student select an area they have discovered man has sacrificed his environment for economic gains. Child should stress how man's greed has affected his environment.	I
Skills to be Learned Communication Dramatization		

mic gains may

vironmental Discipline Area Language Arts

Subject Drama

Problem Orientation Land Use Grade 6

IVES	SUGGESTED LEARNING EXPERIENCES	
amati- ich mic ng- ses. will need f	I. Student-Centered in class activity A. Classroom 1. Have each student select an area they have discovered man has sacrificed his environment for economic gains. Child should stress how man's greed has affected his environment.	II. Outside Resource and Community Activities A. Outside classroom 1. Take a field trip to a farm land that has veen over farmed & crops are poor. 2. Take a field trip to Fox River to observe the polluted areas & discuss how man's demands have hampered the natural beauty of its river. 3. Take pictures of areas that have been hampered by man's desire for economic gains. B. Library Study 1. Have students research in library for ways in which man has created long-term losses by economic gains. 2. Have game warden, county forester or water dept. head talk to class on ways man's greed for economic gains (cont.)

Resource and Reference Materials	Continued and Additional Suggested
Publications: Newspaper clippings on ways man has cut forest, overused farm land Pamphlets from county agent on poor agricultural practices Conservation magazine	II. (cont.) has hampered their particular
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
ays man d farm	II. (cont.) has hampered their particular field.
ent on ices	

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11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language A

Subject Writing

Problem Orientation Pollut

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: Using developed slides, the students will write a photographic essay to show how man has marred the beauty of nature. Affective: Students will criticize actions of themselves and others when they observe an ugly area.	I. Student-Centered in class activity 1. Discuss beautiful or attractive places students have seen. Discuss others that are ugly and unattractive. What caused the ugliness?	II. Out Comm 1. P tr of Al (s ha co ta th Af de on wi ac (S th ta Th on as To ta so co "P in ug
Skills to be Learned Composing a good picture Writing narrative Oral reading for taping		

cts, duplicated

roduce significant

terations over time.

Discipline Area Language Arts

Subject Writing

Problem Orientation Pollution Grade 6

JECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Discuss beautiful or attractive places students have seen. Discuss others that are ugly and unattractive. What caused the ugliness?

II. Outside Resource and Community Activities

1. Plan a photographic field trip. Take pictures (slides) of lovely natural scenes. Also take some pictures (slides) of places where man has polluted [illegible] marred the countryside. (Students may take notes to help recall the pictures they've taken). After the pictures are developed and the choice one's selected, the students will write narration to accompany the slides. (Students may bring slides they have at home or may take pictures of pictures.) The narrative should be put on tape and the tape played as the slides are shown. To introduce the part of the tape on lovely scenes, the song "America the Beautiful" could be sung. The song "Pollution" could be sung to introduce the part on the ugly scenes.

Resource and Reference Materials	Continued and Additional Suggested L
Publications: Magazines with colorful scenes	
Audio-Visual: Camera Tape recorder	
Community: Local photographer	

erials	Continued and Additional Suggested Learning Experiences
hes	

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Langua

Subject Letter

Problem Orientation Ec

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Through letter writing and summarizing, the student will list six ways in which one element in the ecosystem has caused an imbalance affecting and violating the rights of others. Affective: Students will suggest to various sources, ways to help guard against any manipulation or man-made changes being committeed against elements of the ecosystem.	I. Student-Centered in class activity A. Write various agencies of the Federal and State governments in regard to how man has destroyed the balance of the eco-system. B. Bring papers and magazines and books with articles on how rights have been violated. C. When material from government agencies is received, have students compile and summarize important points made by the agencies. 1. Several students could write these on a master and run off copies for all students. D. As a follow-up to these activities, students could write letters to various government officials with their suggestions and also ask them what they could do to help guard against any manipulation or man-made (cont.
Skills to be Learned Developing the skill of concise and properly written letters. Developing the skill of summarizing--being able to pick out the important points each author is making in what they have read; also, summarizing material that they have heard.	

ownership must be re-

stewardship and should

n upon or violate

ual right of others.

Discipline Area Language Arts

Subject Letter Writing & Summarizing

Problem Orientation Ecosystem Grade 6

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
rough letter ummarizing, ill list six one element tem has alance violating others. udents will rious sources, guard against ion or man- being ainst elements tem.	I. Student-Centered in class activity A. Write various agencies of the Federal and State governments in regard to how man has destroyed the balance of the eco-system. B. Bring papers and magazines and books with articles on how rights have been violated. C. When material from government agencies is received, have students compile and summarize important points made by the agencies. 1. Several students could write these on a master and run off copies for all students. D. As a follow-up to these activities, students could write letters to various government officials with their suggestions and also ask them what they could do to help guard against any manipulation or man-made (cont.)	II. Outside Resource and Community Activities
Learned he skill and properly ters. he skill zing--being k out the points each making in what read; also, material have heard.		

Resource and Reference Materials	Continued and Addition
Publications: State Historical Society books and pamphlets U.S. Office of Education Environmental Problems Agency bulletins, excerpts, free educational materials	Student-Centered in clas changes being commi of the ecosystem. E. Try to make the stu they, as individual protecting the righ elements in the eco
Audio-Visual: Student made slides, 8MM films of local conditions	
Community: Speakers: politician DNR representative conservationist water dept. representative local contractor farmer	

ence Materials	Continued and Additional Suggested Learning Experiences
ciety s ation lems excerpts, aterials	Student-Centered in class activity (cont.) changes being committed against the various elements of the ecosystem. E. Try to make the students aware through discussion that they, as individuals, can play an important role in protecting the rights of everyone by protecting all elements in the ecosystem.
, 8MM films s	
entative	

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Langu

Subject Criti

Problem Orientation P

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The child will criticize a city and a rural community's needs for pollution control and how people are interdependent upon people within the community. Affective: The child will criticize the needs for pollution control and interdependency within communities will be shown through his critical writing. Skills to be Learned Researching Observing through actual experience Interviewing Critical thinking	I. Student-Centered in class activity A. Students can write the Chamber of Commerce in cities located on or near the Fox River. Students can also write a conservation agent, county forester, agriculture agent, to gain information about pollution in particular areas. B. Develop a bulletin board on comparison of city and rural community pollution problems. C. Have city planner, water sewafe director, or city sanitary worker visit the class and explain pollution problems within the city. D. Ask county forester, agent or conservationist to visit class and explain pollution problem in a rural community. E. Have students write a critical analysis by comparison of problems that affect a city and rural community.	I

ownership must be re-

stewardship and should

upon or violate

al right of others.

Discipline Area Language Arts

Subject Critical Writing

Problem Orientation Pollution Grade 6

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
child will ty and a y's needs control are inter- people munity. child will needs for rol and y within ll be his ng. earned rough ience king	I. Student-Centered in class activity A. Students can write the Chamber of Commerce in cities located on or near the Fox River. Students can also write a conservation agent, county forester, agriculture agent, to gain information about pollution in particular areas. B. Develop a bulletin board on comparison of city and rural community pollution problems. C. Have city planner, water sewafe director, or city sanitary worker visit the class and explain pollution problems within the city. D. Ask county forester, agent or conservationist to visit class and explain pollution problem in a rural community. E. Have students write a critical analysis by comparison of problems that affect a city and rural community.	II. Outside Resource and Community Activities A. Take a bus trip through a city on the Fox River such as Appleton, Green Bay, Kaukauna, or Kimberly to see the effect of pollution in a city area. B. Take a field trip to a farm area where erosion and pollution have taken place.

Resource and Reference Materials	Continued and Additional Sugge
Publications: Newspaper articles Pamphlets published by Chamber of Commerce within State of Wisconsin or Department of Natural Resources, Conservation, or Forestry	
Audio-Visual:	
Community:	

ce Materials	Continued and Additional Suggested Learning Experiences
y Chamber of e of Wisconsin ural Resources, estry	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish to format. Please feel free to adapt it and add more pages. Let us kn comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

ch episode used in your class, you may wish to duplicate this suggested ree to adapt it and add more pages. Let us know all your critiques and d positive.

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ce & Reference Materials
tions & comments)

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A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 7

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
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- E INSTRUCTION - CURRICULUM - ENVIRONMENT

RY PROGRAM FOR ENVIRONMENTAL EDUCATION

EA Language Arts GRADE 7

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sconsin 54301
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George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, hel
of over a hundred teachers, year long meetings, a summer works
ecologists, this guide means realistic, developed aid for you
which have directed teachers in writing and editing this guid

1. This guide is supplementary in nature and the episodes are
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know y
   to adapt, adopt, or use. By design, the range of suggestio
   mentation and usage are even wider. Many episodes are self
   others can be changed in part or developed more keenly ove
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learni
   plan. The reasons are simple. No guide has all the answe
   unless viewed in the context of your classroom situation.
   give it a triple reading, check over the resources listed,
   prime your students, and seek help. The Project personnel
   knowledgement page stand ready to aid your efforts. Feel f
4. The Project Resource Materials Center serves all CESA 3, 8
   private. We will send available materials pre-paid. Call
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school li
   Center materials. Please offer suggestions, comments, or
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scr
   suggestions on the episode pages or use the attached evalu
   lected in late May next year and will be used in our revis
   reactions and suggestions--negative and positive. Please n
   in the episodes may refer to specific, local community res
   cases, individual school districts and teachers will have
   stitutes. A list of terms pertinent to the episodes is be
7. Ecologists and other experts have simplified the issue--su
   Creation's beauty and complexity--often noted as the work
   and human energy to save. A year's work by a hundred of y
   gesture. Without you, their work will crumble, and so mig
   let us live to think, feel, and act in harmony with our wo

1. Cognitive means a measurable mental skill, ability, or
2. Affective refers to student attitudes, values, and feel
3. APWI means Acceptable Performance Will Include (labels
4. EPA - Environmental Problem Area.

PREFACE

xcite students about their environment, help is ready. Thanks to the efforts
teachers, year long meetings, a summer workshop, university consultants and
uide means realistic, developed aid for you. Please note the following ideas
d teachers in writing and editing this guide.
upplementary in nature and the episodes are designed--at appropriate instan-
to existing, logical course content.
isode offers suggestions. Since you know your students best, you decide what
, or use. By design, the range of suggestions is wide; your chances for experi-
sage are even wider. Many episodes are self-contained, others open-ended, still
hanged in part or developed more keenly over a few weeks. These built-in
llow you to explore.
t you try the episodes and suggested learning experiences but please pre-
ons are simple. No guide has all the answers and no curriculum will work
n the context of your classroom situation. Thus, before trying an episode,
e reading, check over the resources listed, make mental and actual notes,
ents, and seek help. The Project personnel and teachers listed on the ack-
age stand ready to aid your efforts. Feel free to ask their help in pre-planning.
ource Materials Center serves all CESA 3, 8, and 9 area schools--public and
ll send available materials pre-paid. Call for any help, materials, or to
32-4338.
Project ICE Bibliography in your school library for available Resource
s. Please offer suggestions, comments, or advice--at any time--so that this
w. Let's help each other.
f with the guide by reacting to it with scratch ideas, notes, and extended
the episode pages or use the attached evaluation format, which will be col-
May next year and will be used in our revisions. We sincerely want your
uggestions--negative and positive. Please note that some resources listed
may refer to specific, local community resources or conditions. In such
al school districts and teachers will have to adopt local or available sub-
st of terms pertinent to the episodes is below.
other experts have simplified the issue--survival--yours, mine, our students,
ty and complexity--often noted as the work of a genius--will take our genius
y to save. A year's work by a hundred of your fellow teachers is a saving
ut you, their work will crumble, and so might we all--literally. Instead,
think, feel, and act in harmony with our world.

Editorial Board

ans a measurable mental skill, ability, or process based on factual data.
fers to student attitudes, values, and feelings.
cceptable Performance Will Include (labels a cognitive or mental performance.)
nmental Problem Area.

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Gillett

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CONCEPT 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area Lan

Subject Lib

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Given an incomplete food chain, the student, through application of location skills, will be able to place himself as a link in the chain of life, and place the sun as the main energy source. Affective: Using basic research skills through the use of media, the students will support the "suns' energy cycle."	I. Student-Centered in class activity A. Class 1. Discuss the food chain of algae to the sun. 2. Use string to build a "web of life" which shows how plants and flowers and bugs and man all need the sun.
Skills to be Learned Location skills: Use of card catalogue Use of the reader's guide Films-Film loops-Film strips	

from the sun, the basic source
rgy, is converted through
osynthesis into a form all
ngs can use for life pro-
cesses.

Discipline Area Language Arts

Subject Library

Problem Orientation Energy Grade 7

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Given an incom- hain, the ough applica- tion skills, to place him- nk in the e, and place he main energy Using basic lls through edia, the l support nergy cycle." Learned lls: catalogue reader's guide loops-Film	I. Student-Centered in class activity A. Class 1. Discuss the food chain of algae to the sun. 2. Use string to build a "web of life" which shows how plants and flowers and bugs and man all need the sun.	II. Outside Resource and Community Activities A. Library 1. Locate books on Ecology showing food chins. 2. Locate the Second law of thermo-dynamics. 3. Find 3 current articles dealing with destruction of eco-systems. 4. Read articles dealing with the conversion of solar energy. B. Community 1. Field, ecology trips to discover food chains.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Life Magazine, Ecology Conservation (pamphlet) Cornell University Press **Audio-Visual:** **Community:** County Soil Conservation Office - Court House Agriculture Extension Agent	

Materials	Continued and Additional Suggested Learning Experiences
s	
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gent	

C 2. All living organisms interact among
O
N themselves and their environment,
C
E forming an intricate unit called an
P
T ecosystem.

Discipline Area Language
Subject Speaking
Problem Orientation Ecos

BEHAVIORAL OBJECTIVES

Cognitive: The student will compile a list of ideas through the technique of brainstorming, concerning the question: What ways can man live in harmony with nature in the 20th century?

Affective: Through technique of brainstorming the student will suggest that the manipulation of one element in nature affects all elements.

Skills to be learned
Brainstorming
List-making

SUGGESTED LEARNING EX

I. Student-Centered in class activity
  A. Present to the group the techniques of getting ideas through "throwing out" ideas quickly and "freewheeling" to get ideas on the topic.
  B. Form groups of five. Each group with a tape recorder or paper.
  C. From chairman's reports eliminate all lesser important ideas through the use of the tape recorder.
  D. Compile a final list of selected ideas.

II.
C

ng organisms interact among

and their environment, Discipline Area Language Arts

intricate unit called an Subject Speaking - Brainstorming

Problem Orientation Ecosystem Grade 7

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
he student will t of ideas echnique of , concerning What ways can armony with 20th century? hrough tech- nstorming the suggest that ion of one ature affects	I. Student-Centered in class activity A. Present to the group the techniques of getting ideas through "throwing out" ideas quickly and "freewheeling" to get ideas on the topic. B. Form groups of five. Each group with a tape recorder or paper. C. From chairman's reports eliminate all lesser important ideas through the use of the tape recorder. D. Compile a final list of selected ideas.	II. Outside Resource and Community Activities
learned g		

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Group Dynamics A Source Book for Crative Thinking, Sidney Parnes & H. Harding, editors; Charles Scribner's Sons, publisher; New York.	
Audio-Visual:	
Community:	

e Materials	Continued and Additional Suggested Learning Experiences
ive Thinking, rding, bner's Sons,	

CONCEPT

3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area ___

Subject ___

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: When a list of man's needs are established, the student will show by class discussion evidence of man's possible over-use and mis-use of these needs. Affective: Attempting to locate a delicate line between what man needs, and what he thinks he needs, the student will submit what he thinks are apparent discrepancies in these needs.	I. Student-Centered in class activity 1. Develop with the students through individual research and compilations a list of man's basic needs 2. Taking the list of basic needs (unique in your class begin a critical analysis of each, as to its degree as a need and its actual degree of use. (Is it being mis-used, over-used, etc?) 3. Form debate teams either formal or informal. Allow students to form lines along that which they believe as much as possible. One team defending a given need itself, perhaps, or its use or misuse.
Skills to be Learned Research skills Group communication Critical analysis Speaking activities Brainstorming in small groups	

mental factors are limiting
bers of organisms living
eir influence, thus, each
t has a carrying capacity.

Discipline Area Language Arts
Subject Debate
Problem Orientation Carry Capacity Grade 7

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
When a list of are established, will show by ssion evidence ssible over- -use of these Attempting to icate line man needs, thinks he student will he thinks discre- hese needs.	I. Student-Centered in class activity 1. Develop with the students through individual research and compilations a list of man's basic needs. 2. Taking the list of basic needs (unique in your class) begin a critical analysis of each, as to its degree as a need and its actual degree of use. (Is it being mis-used, over-used, etc?) 3. Form debate teams either formal or informal. Allow students to form lines along that which they believe as much as possible. One team defending a given need itself, perhaps, or its use or misuse.	II. Outside Resource and Community Activities
e Learned kills nication alysis tivities ng in small		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Books: Science encyclopedias textbooks Patterns of Living, Lyons and Carnahan Discussion & Debate, National Textbook Co. Speaking By Doing, National Textbook Co.	
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
ons ational ional	

CONCEPT

4. An adequate supply of pure water is essential for life.

Discipline Are

Subject

Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: After viewing the film "The Gifts", field trip and personal activities, students will discuss the various types of water pollution. Affective: Since an adequate supply of pure water is essential to life, hopefully the students will argue that water pollution is a serious problem.	I. Student-Centered in class activity 1. After viewing the fi "The Gifts", students will react orally by expressing the feelin that well up as a resu of the film. 2. They will discuss a become aware of ways that they pollute dir ly or indirectly.
Skills to be Learned	
Discussion Observation	

adequate supply of pure water Discipline Area Language Arts

sential for life. Subject Discussion

Problem Orientation E.P.A. Water Grade 7

AVIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
e: After viewing the ē Gifts", field trip onal activities, stu- ll discuss the vari- s of water pollution. e: Since an adequate f pure water is essen- life, hopefully the will argue that llution is a serious	I. Student-Centered in class activity 1. After viewing the film "The Gifts", students will react orally by expressing the feelings that well up as a result of the film. 2. They will discuss and become aware of ways that they pollute directly or indirectly.	II. Outside Resource and Community Activities 1. Students will visit and observe local pollution areas and prepare to discuss their findings in class.
o be Learned ion tion		

Resource and Reference Materials	Continued and Additional Suggest
Publications: *Lord Jim* by Joseph Conrad (Excerpts read by the teacher) Audio-Visual: Film: "The Gifts" Project I-C-E Resource Center 1927 Main Street Green Bay, WI 54301 or U.S. Department of Interior Federal Water Quality Assn. Office of Public Instruction Community: Field Trip	

nce Materials	Continued and Additional Suggested Learning Experiences
Conrad the teacher) urce Center 01 Interior ity Assn. nstruction	

CONCEPT 5. An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food.

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Through critical reading the student will be able to distinguish between fact vs. opinion on adequate air supply through newspaper articles and labeling these articles as factual or opinionated. Affective: The student submits that critical reading is a method which demonstrates that all material read in newspapers is not factual but in many cases, is the opinion of an individual which is mostly prejudiced in one form or other.	I. Student-Centered in class activity 1. Bring to class enough local newspapers that each student will have two to read and look for appropriate articles. 2. Teacher will xerox several articles that demonstrate opinion and articles that demonstrate fact to develop student's awareness of the differences that are existent. 3. After reading articles on air pollution, each student will write a paragraph expressing his opinion of air pollution. as it exists in his community. 4. Students will then research factual material on air pollution and write a paragraph that is based on pure facts. 5. Class discussion held on which type paragraph students found most difficult to write and why. Each student will---
Skills to be Learned Distinguish factual material on air pollution from a writer's opinion. Effective critical reading is analyzing and categorizing material.	

e supply of clean air is
ause most organisms depend
on to supply the oxygen
lease the energy in their

Discipline Area Lanugage Arts
Subject Criterial Reading-Writing
Problem Orientation E.P.A. Air Grade 7

AL OBJECTIVES

ough critical
udent will be
guish between
on on adequate
ough newspaper
abeling these
ctual or

e student sub-
tical reading
hich demon-
ll material
apers is not
n many cases,
n of an indi-
is mostly
one form or

Learned
factual material
ion from a
ion.
itical reading
and categor-
l.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Bring to class enough local newspapers that each student will have two to read and look for appropriate articles.
2. Teacher will xerox several articles that demonstrate opinion and articles that demonstrate fact to develop student's awareness of the differences that are existent.
3. After reading articles on air pollution, each student will write a paragraph expressing his opinion of air pollution. as it exists in his community.
4. Students will then research factual material on air pollution and write a paragraph that is based on pure facts.
5. Class discussion held on which type paragraph students found most difficult to write and why. Each student will---

(cont.)

II. Outside Resource and Community Activities
1. Have a newspaper reporter or editor speak to the class on writing editorials (which are that editor's opinion).
2. As a presentation for the factual side, have a teacher in the field of science present facts on air pollution.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Newspaper articles	I. (cont.) read orally both of his paragr of the class to share opinions
Audio-Visual:	
Community: Have newspaper writer or editor visit class.	

Materials	Continued and Additional Suggested Learning Experiences.
	I. (cont.) read orally both of his paragraphs which will enable all of the class to share opinions and facts on air pollution.

CONCEPT 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area Lang

Subject Grou

Problem Orientation Natur Reso

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: After a buzz session, students will formulate conclusions on the issue that 6 environmental changes made by man may damage plants and animals & upset the ecological balance. Affective: The student should promote the beauty of a pond and a sense of responsibility for its preservation. Skills to be Learned Discussion Buzzing	I. Student-Centered in class activity 1. Students will read the story "Walden's Pond" by Thoreau; then randomly place children in groups of 3 or 4 & have them "buzz" for about 10 minutes about the things Thoreau enjoyed during his visit to Walden Pond. Instruct each group to formulate & write down statements made--accept all statements. Have a master list of the children's statements typed & distribute copies to the class the following day. The initial statements are discussed, refined, reworded, retyped & copies are given to group members to help them formulate ideas for another buzz session. The students could follow the same procedure to answer the question, "What would happen to the plant & animal life if the engineers planning a new highway decide to drain Walden Pond?" At the end (Cont.)	II. C Co 1

sources are not equally
ver the earth or over
tly affect the geographic
d quality of life.

Discipline Area Language Arts
Subject Group discussion
Problem Orientation Natural Resources Grade 7

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
er a buzz ts will usions on 6 environ- made by man ts and the ecolo- student the beauty sense of for its	I. Student-Centered in class activity 1. Students will read the story "Walden's Pond" by Thoreau; then randomly place children in groups of 3 or 4 & have them "buzz" for about 10 minutes about the things Thoreau enjoyed during his visit to Walden Pond. Instruct each group to formulate & write down statements made--accept all statements. Have a master list of the children's statements typed & distribute copies to the class the following day. The initial statements are discussed, refined, reworded, retyped & copies are given to group members to help them formulate ideas for another buzz session. The students could follow the same procedure to answer the question, "What would happen to the plant & animal life if the engineers planning a new highway decide to drain Walden Pond?" At the end (Cont.)	II. Outside Resource and Community Activities 1. Students visit a local pond individually or in a group, depending on the area.
arned		

Resource and Reference Materials

Publications:

Wide, Wide World of Literature,
"The Loon" by Henry David Thoreau

Audio-Visual:

Film:

World in a Marsh, Consulate
General of Canada Film
Library, 310 S. Michigan
Avenue, Chicago, Ill. 60604

Community:

High school biology teacher
(could talk to the class
about life in a pond.)

Continued and Additional Suggeste

I. (Cont.)
of the buzz session, each grou
conclusions.

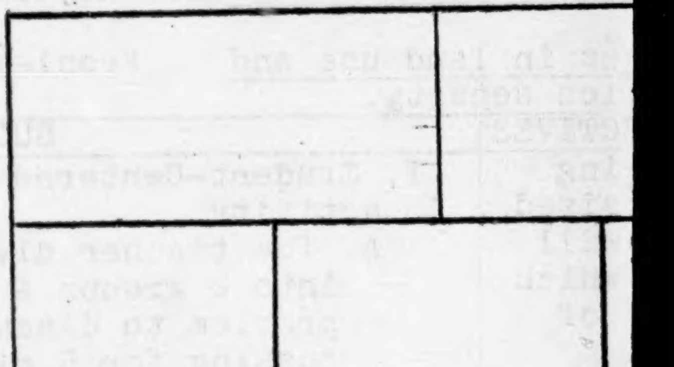
Materials	Continued and Additional Suggested Learning Experiences
erature: vid Thoreau	I. (Cont.) of the buzz session, each group will report its conclusions.
ulate m gan 60604	
acher ass)	

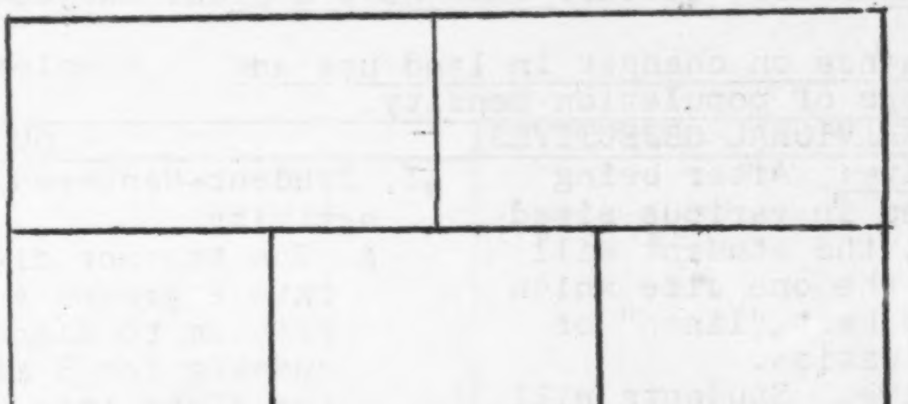
C 7. Factors such as facilitating transportation,
O
N economic conditions, population growth, Discipline Area
C
E and increased leisure time have a great Subject
P
T influence on changes in land use and Problem Orientati
centers of population density.

BEHAVIORAL OBJECTIVES	SUGGESTED LEA
Cognitive: After being involved in various sized groups, the student will choose the one size which has the best "lines" of communication. Affective: Students will evaluate the fact that population size affects communication.	I. Student-Centered in class activity A. The teacher divides the c into 2 groups & gives ther problem to discuss. After cussing for 5 minutes, div the class into 3 groups tc discuss another issue. The will be a third regrouping 5 groups & a final groupin 10 groups, each of the 4 g will have a different topi discussion. One person frc of the final groupings wil chosen as a panelist. This of 10 will discuss how the of the group affects commu Examples of topics: Shoulc a candy machine in our sch Should we have students mc the halls? What should we students who misbehave? Wh we have recess? Note: Illustration of grou on next page.
Skills to be Learned Speaking Group discussion Panel discussion Problem Solving	

such as facilitating transportation,
onditions, population growth, Discipline Area Language Arts
sed leisure time have a great Subject Discussion
on changes in land use and Problem Orientation Population Grade 7
population density.

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
After being various sized student will he size which "lines" of n. Students will fact that ize affects n. Learned ssion ssion ving	I. Student-Centered in class activity A. The teacher divides the class into 2 groups & gives them a problem to discuss. After discussing for 5 minutes, divide the class into 3 groups to discuss another issue. There will be a third regrouping of 5 groups & a final grouping of 10 groups, each of the 4 groupins will have a different topic for discussion. One person from each of the final groupings will be chosen as a panelist. This panel of 10 will discuss how the size of the group affects communication. Examples of topics: Should we have a candy machine in our school? Should we have students monitor the halls? What should we do with students who misbehave? Why don't we have recess? Note: Illustration of groupings on next page.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested L
Publications: Speaking by Doing, National Textbook Co. Audio-Visual: Community:	I. Illustration of groupings:  (One student from each of the fi

terials	Continued and Additional Suggested Learning Experiences
l	I. Illustration of groupings:  (One student from each of the final groupings)

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Are

Subject

Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED
Cognitive: Through a dialog narration, the students will creatively write how the cultures of the white man & Indian creates different values & attitude toward their environment. Affective: The students will support the fact that different cultures will produce different values & attitudes.	I. Student-Centered in cla activity A. Class 1. Read the story, Li in the Forest by Co Richter. 2. Discuss True Son's attitude toward the man's civilization. are his attitudes a adopted Indian dif from his brother Go attitudes? 3. Write a dialog na such as True Son & might have about th choices in the way life.
Skills to be Learned Writing narration in dialog form	

ural, economic, social, and
ea al factors determine status
s values and attitudes
ta his environment.

Discipline Area Language Arts
Subject Reading-narrative writing
Problem Orientation Attitudes Grade 7

VIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
as : Through a rration, the will creatively Li the cultures Co ite man & eates different s attitude toward he ironment. n. : The students a ort the fact f erent cultures Go uce different attitudes. ar & be Learned ch narration in y form	I. Student-Centered in class activity A. Class 1. Read the story, Light in the Forest by Conrad Richter. 2. Discuss True Son's attitude toward the white man's civilization. How are his attitudes as an adopted Indian different from his brother Gordy's attitudes? 3. Write a dialog narration such as True Son & Gordy might have about their choices in the way of life.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sugge
Publications: Wisconsin Historical Society, Articles on Indians, Wisconsin History Audio-Visual: Film: The Light in the Forest Community:	

es	e Materials	Continued and Additional Suggested Learning Experiences
	ociety, Wisconsin	
	st	

C
O
N
C
E
P
T

9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area

Subject

Problem Orientat

BEHAVIORAL OBJECTIVES

Cognitive: The students will be able to analyze information obtained from two states & compare & contrast pollution control efforts in the form of a mobile or collage.

Affective: After writing to various cities in Wyoming & Wisconsin, the student will specify the effects of population & industry on the environment.

Skills to be Learned
Comparing
Contrasting
Letter writing

SUGGESTED L

I. Student-Centered in clas
activity
A. Classroom
1. Students can write
Chamber of Commerces
different cities of
Wyoming to find out
pollution control ef
are being undertaken
various cities in th
state. (Wyoming chos
because of great pop
lation contrast.)
2. Do the same in home
& cities in Wisconsi
3. Hold an "open group
discussion" to share
and compare problems
to population size &
industry.
4. Construct collage
mobiles expressing a
comparison & contras
of the two states ef
and problems.

he ability to manage,

and change his

Discipline Area Language Arts

Subject Letter Writing

Problem Orientation Pollution Grade 7

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
e students o analyze tained from ompare & tion control form of a age. ter writing ies in onsin, the pecify the ulation the	I. Student-Centered in class activity A. Classroom 1. Students can write to Chamber of Commerces in different cities of Wyoming to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population contrast.) 2. Do the same in home city & cities in Wisconsin. 3. Hold an "open group discussion" to share ideas and compare problems due to population size & industry. 4. Construct collage mobiles expressing a comparison & contrast of the two states efforts and problems.	II. Outside Resource and Community Activities
earned g		

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Audio-Visual: Old magazines Community: Art teachers Chamber of Commerce State Historical Society	

terials	Continued and Additional Suggested Learning Experiences

C 10. Short-term economic gains may
O
N produce long-term environmental
C
E losses.
P
T

Discipline Area Langua

Subject Critic
Nat

Problem Orientation Res

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: Students will participate in class discussion & view a movie to help them write a description of how an action for short-term economic gain can produce long-term environmental loss. Affective: Students will promote concern for avoiding such exploitation of our resources.	I. Student-Centered in class activity A. Classroom 1. Class will discuss the meaning of short-term exploitation of natural resources & resulting long-term losses. 2. Students tell of examples they have seen or heard of in order to reinforce understanding. 3. While viewing movies, each student will make notes of short-term gains & long-term losses. 4. Each student will write a description of how short-term economic gains produce long-term losses in movies. 5. Discussion prior to viewing movies will draw on previous experiences of students.
Skills to be Learned Critical thinking Observation Note taking Critical writing	

economic gains may

erm environmental

Discipline Area Language Arts

Subject Critical Writing

Problem Orientation Natural Resources Grade 7

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
ents will lass v a movie te a ow an -term n produce nmental ents will for ploitation .	I. Student-Centered in class activity A. Classroom 1. Class will discuss the meaning of short-term exploitation of natural resources & resulting long-term losses. 2. Students tell of examples they have seen or heard of in order to reinforce understanding. 3. While viewing movies, each student will make notes of short-term gains & long-term losses. 4. Each student will write a description of how short-term economic gains produce long-term losses in movies. 5. Discussion prior to viewing movies will draw on previous experiences of students.	II. Outside Resource and Community Activities
rned ng g		

Resource and Reference Materials	Continued and Additional Sugges
Publications: Audio-Visual: Movie, Teamwork on the Potomac, shows the environmental losses produced by pollution & degrading of the Potomac River. Interstate Commission on the Potomac River, 407 Global Bldg. 1025 Vermont Ave., NW, Washington, D.C. 20005 Any other movie may be used which shows long-term loss resulting from short-term exploitation. Community:	

laterials	Continued and Additional Suggested Learning Experiences
otomac, losses c River. the al Bldg. sed oss rm	

ESEA Title III - 59-70-0135-1 Project I-C-E

C 11. Individual acts, duplicated
O
N or compounded, produce significant
C
E environmental alterations over time.
P
T

Discipline Area Langu

Subject Engli

Problem Orientation E.

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive Through creative writing, the student will be able to show by specific example the concept of cause, effect, and time. Affective: The students will suggest other examples in their reading of man's activities that have changed the environment.	I. Student-Centered in class activity A. Discuss with class the kinds of activities man is engaged in that may, over a period of time, create problems with the environment. B. Discuss what values caused these actions of man. 1. Man vs. DDT 2. Population explosion C. Taking one of man's activities, project possible consequences in the future. (These writings should be based on some degree of authenticity). D. Give a cause (industry) plus time (100 years), and discuss what could be the effect on the environment. E. Writings done could be in the form of journals, documentaries, editorials, satire, and so on.	I
Skills to be Learned Creative writing Creative thinking Creative solutions Grammar Reading for information		

acts, duplicated

u produce significant

i alterations over time.

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Discipline A~~r~~ea Language Arts

Subject English

Problem Orientation E. Alterations Grade 7

G OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
I creative dent will be specific ept of cause, . tudents will amples in man's have changed rned g ns rmation	I. Student-Centered in class activity A. Discuss with class the kinds of activities man is engaged in that may, over a period of time, create problems with the environment. B. Discuss what values caused these actions of man. 1. Man vs. DDT 2. Population explosion C. Taking one of man's activities, project possible consequences in the future. (These writings should be based on some degree of authenticity). D. Give a cause (industry) plus time (100 years), and discuss what could be the effect on the environment. E. Writings done could be in the form of journals, documentaries, editorials, satire, and so on.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional
Publications: Short stories about, or excerpts from lives of great industrialists, etc. Biographies Encyclopedias Industrialists: Henry Ford Horard Hughes John Deere Audio-Visual: Community:	

e Materials	Continued and Additional Suggested Learning Experience
r excerpts dustrialists,	

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encrouch upon or violate the individual right of others

Discipline Area Language A

Subject Letter Wri

Problem Orientation Pollu

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: After writing to various cities in Wyoming and Wisconsin, the student through making a collage or mobile will show the effects of population and industry on environment. Affective: The student will analyze information obtained from two states and compare and contrast pollution control efforts.	I. Student-Centered in class activity 1. Students can write to Chamber of Commerce in Wyoming cities to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population contrast) 2. Do the same in home city and cities in Wisconsin. 3. Hold an open group discussion to share ideas and compare problems due to population size and industry. 4. Construct collage, mobiles expressing a comparison and contrast of the two states efforts and problems.	II. Out Comm
Skills to be Learned Comparing and contrasting Letter writing Interviewing		

ownership must be re-

stewardship and should

upon or violate

ual right of others

Discipline Area Language Arts

Subject Letter Writing

Problem Orientation Pollution Grade 7

OBJECTIVES

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ntrasting

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Students can write to Chamber of Commerce in Wyoming cities to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population contrast)
2. Do the same in home city and cities in Wisconsin.
3. Hold an open group discussion to share ideas and compare problems due to population size and industry.
4. Construct collage, mobiles expressing a comparison and contrast of the two states efforts and problems.

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional S
Publications: State Historical Society Audio-Visual: Community: Art teachers Chambers of Commerce	

rence Materials	Continued and Additional Suggested Learning Experiences
ciety	
e	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish format. Please feel free to adapt it and add more pages. Let us comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
(specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

on each episode used in your class, you may wish to duplicate this suggested eel free to adapt it and add more pages. Let us know all your critiques and ve and positive.

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arning Experiences

Community Activities

ource & Reference Materials
gestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONMEN

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 8

Produced under Title III E.S.E.A.
PROJECT I-C-E
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INSTRUCTION - CURRICULUM - ENVIRONMENT

FOR ENVIRONMENTAL EDUCATION

e Arts GRADE 8

E.S.E.A.

3-8-9

301

Robert Warpinski, Director
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8

PREFACE

If you wish to excite students about their environment, help is
of over a hundred teachers, year long meetings, a summer workshop
ecologists, this guide means realistic, developed aid for you. P
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are des
ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your
to adapt, adopt, or use. By design, the range of suggestions i
mentation and usage are even wider. Many episodes are self-con
others can be changed in part or developed more keenly over a
possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning e
plan. The reasons are simple. No guide has all the answers a
unless viewed in the context of your classroom situation. Thu
give it a triple reading, check over the resources listed, mak
prime your students, and seek help. The Project personnel and
knowledgement page stand ready to aid your efforts. Feel free
4. The Project Resource Materials Center serves all CESA 3, 8, an
private. We will send available materials pre-paid. Call for
visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school librar
Center materials. Please offer suggestions, comments, or advi
service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch
suggestions on the episode pages or use the attached evaluatio
lected in late May next year and will be used in our revisions.
reactions and suggestions--negative and positive. Please note
in the episodes may refer to specific, local community resourc
cases, individual school districts and teachers will have to ac
stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--surviva
Creation's beauty and complexity--often noted as the work of a
and human energy to save. A year's work by a hundred of your
gesture. Without you, their work will crumble, and so might we
let us live to think, feel, and act in harmony with our world.

1. Cognitive means a measurable mental skill, ability, or proce
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cog
4. EPA - Environmental Problem Area.

PREFACE

cite students about their environment, help is ready. Thanks to the efforts
eachers, year long meetings, a summer workshop, university consultants and
ide means realistic, developed aid for you. Please note the following ideas
teachers in writing and editing this guide.
pplementary in nature and the episodes are designed--at appropriate instan-
o existing, logical course content.
sode offers suggestions. Since you know your students best, you decide what
or use. By design, the range of suggestions is wide; your chances for experi-
age are even wider. Many episodes are self-contained, others open-ended, still
anged in part or developed more keenly over a few weeks. These built-in
low you to explore.
you try the episodes and suggested learning experiences but please pre-
ns are simple. No guide has all the answers and no curriculum will work
the context of your classroom situation. Thus, before trying an episode,
reading, check over the resources listed, make mental and actual notes,
nts, and seek help. The Project personnel and teachers listed on the ack-
ge stand ready to aid your efforts. Feel free to ask their help in pre-planning.
urce Materials Center serves all CESA 3, 8, and 9 area schools--public and
l send available materials pre-paid. Call for any help, materials, or to
2-4338.
Project ICE Bibliography in your school library for available Resource
. Please offer suggestions, comments, or advice--at any time--so that this
. Let's help each other.
with the guide by reacting to it with scratch ideas, notes, and extended
he episode pages or use the attached evaluation format, which will be col-
ay next year and will be used in our revisions. We sincerely want your
ggestions--negative and positive. Please note that some resources listed
may refer to specific, local community resources or conditions. In such
l school districts and teachers will have to adopt local or available sub-
t of terms pertinent to the episodes is below.
ther experts have simplified the issue--survival--yours, mine, our students,
y and complexity--often noted as the work of a genius--will take our genius
to save. A year's work by a hundred of your fellow teachers is a saving
t you, their work will crumble, and so might we all--literally. Instead,
hink, feel, and act in harmony with our world.

Editorial Board

ns a measurable mental skill, ability, or process based on factual data.
ers to student attitudes, values, and feelings.
ceptable Performance Will Include (labels a cognitive or mental performance.)
mental Problem Area.

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Lousene Benter, Gillett

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#3
rson, Peshtigo
n, Oconto Falls
llins, Crivitz
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l Santo, Pembine
inson, Oconto
n, Marinette
dard, Coleman
ber, Lena
, St. James (L)
, Wausaukee
sten, Suring
h, Cath. Central
h, Bonduel
lin, Goodman
Shawano
o, Niagara
er, Gillett
Crivitz
ling, Marinette
bridge, White Lake
musl, White Lake
n, Lena
, Gillett
ter, Gillett

CESA #8
Lowell Baltz, Weyauwega
William Behring, Lourdes
David Bell, Neenah
Marie Below, Clintonville
William Bohne, Kimberly
Bob Church, Little Chute
Ronald Conradt, Shiocton
Lee Halberg, Appleton
Ronald Hammond, Hortonville
Jerome Hennes, Little Chute
Barbara Huth, Menasha
Darrell Johnson, Hortonville
Bernadyne King, Neenah
Harold Lindhorst, St.Martin (L)
John Little, Winneconne
Gordon Rohloff, Oshkosh
William Schaff, St. Joseph
Doris Stehr, Mt. Calvary (L)
Carolyn Shills, New London
Sister Dorothy, Xavier
Clarence Trentlage, Freedom
Mike Hawkins, Xavier
Beth Hawkins, Xavier
Ed Patschke, Menasha
Connie Peterson, St.Martin (L)
Dallas Werner, Kaukauna
Ron Schreier, Omro

CESA #9
Joan Alioto, Denmark
Angela Anthony, Gibralter
Harold Baeten, St. Norbert
Anthony Balistreri, Howard-Suamico
Lillian Berges, Seymour
Carmella Blecha, Green Bay
Joan Charnetski, Sevastopol
Billie Feichtinger, Green Bay
Rev. B. Frigo, Abbot Pennings
Robert Haen, Luxemburg-Casco
Russ Hanseter, Seymour
Paul Kane, Ashwaubenon
Roy Lukes, Gibralter
Sister Anna, St. Philips
Jim Maki, Sturgeon Bay
Joyce Mateju, Algoma
Richard Minten, W. DePere
Gloria Morgan, Linsmeier Private
George Pederson, Southern Door
Alan Schuh, Pulaski
Thomas Weyers, Cathedral
Ruth Windmuller, Green Bay
James Wiza, DePere
John Torgerson, Kewaunee
Benjamin Roloff, Howard-Suamico
Greg Schmitt, Cathedral
John DeWan, Green Bay
Emmajean Harmann, Sevastopol
Ray Gantenbein, Green Bay
David Bartz, Sturgeon Bay
John Hussey, Green Bay
Sister Barbara, St. Bernard

Staff
UW-Marinette
hards, UW-Marinette

Ednajean Purcell, OSU
David West, Lawrence U.

Robert Cook, UWGB
Dennis Bryan, UWGB

C Energy from the sun, the basic source
O
N of all energy, is converted through — Discipline Area
C
E photosynthesis into a form all — Subject
P
T living things can use for life processes. (1) — Problem Orienta

BEHAVIORAL OBJECTIVES	SUGGESTED L
Cognitive: Through the use of antonyms and the shades of meaning between, the student will reinforce the concept of life's dependence on the sun. Also contribute to the development of vocabulary & knowledge of parts of speech. Affective: The student will support the idea that words are related through shades of meaning from one extreme to the opposite extreme (antonym) such as life to death.	I. Student-Centered in class activity Diamante-a kind of poem i the shape of a diamond. noun adj. adj. participle part. part. noun noun noun noun participle part. part. adj. adj. noun (Center four nouns related to both antonyms) Example life green bright shining growing blooming heat motion sun food fading slowing dimming brown old death
Skills to be Learned Word selection Organization Contrast Students working together	

un, the basic source
converted through Discipline Area Language Arts
to a form all Subject Written Expression-Grammar
use for life pro- Problem Orientation Energy use Grade 8
cesses. (1)

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
the use shades the rce the epen- lso evelop- & know- peech. dent ea ted eaning the ntonym) th. d	I. Student-Centered in class activity Diamante-a kind of poem in the shape of a diamond. noun adj. adj. participle part. part. noun noun noun noun participle part. part. adj. adj. noun (Center four nouns related to both antonyms) Example life green bright shining growing blooming heat motion sun food fading slowing dimming brown old death	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Sugges
Publications: Books: Thesaurus Dictionary Text books	
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences

CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area

Subject '

Problem Orientation

BEHAVIORAL OBJECTIVES

Cognitive: Students will reinforce their concepts of environment by searching for words related to environment. They will expand word recognition and vocabulary at the same time by making a puzzle to be solved by another student.

Affective: The student will submit words concerned with ecology which will broaden the concept of ecology and increase concern for the ecosystem.

Skills to be Learned

Use of dictionary
Reference
Reading
Spelling
Roget's Thesaurus

SUGGESTED LEARN

I. Student-Centered in class activity

1. Prepare a word list concerned with ecology or some sub-division of it. Scramble the letters of these words to make a puzzle, as illustrated below. Each student contributes one or more puzzles to be solve by other students.

WORD LIST

Trees - lake - soil - rain
wildlife - grass - air - s

```
w i r a i r t e n l r o f
t i s e l e r f g r a s s
i l l d e s e r n o u i u
e o u d a b t r e e s o n
x r i m l n y z o f b s c
l k o u s i p r e i n g l
d b e f g h f i n g i i m
j i l o l a k e x p o r s
o g r a i n s w r s u n m
```

ving organisms interact among
s and their environment,
n intricate unit called
tem.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Ecosystem Grade 8

ORAL OBJECTIVES

Students will
heir concepts
ent by searching
elated to enviror-
will expand word
and vocabu-
same time by
zzle to be
nother student.
The student
words con-
ecology which
n the concept
and increase
the eco-

be Learned
tionary

esaurus

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Prepare a word list concerned with ecology or some sub-division of it. Scramble the letters of these words to make a puzzle, as illustrated below. Each student contributes one or more puzzles to be solved by other students.

WORD LIST

Trees - lake - soil - rain
wildlife - grass - air - sun

```
w i r a i r t e n l r o f
t i s e l e r f g r a s s
i l l d e s e r n o u i u
e o u d a b t r e e s o n
x r i m l n y z o f b s c
l k o u s i p r e i n g l
d b e f g h f i n g i i m
j i l o l a k e x p o r s
o g r a i n s w r s u n m
```

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested Lear
Publications: Newspaper articles Pamphlets & bulletins on ecology Stories Books Magazines National Wildlife Outdoor Life Field & Stream Audio-Visual: Filmstrips (any on environment) Community:	

rials	Continued and Additional Suggested Learning Experiences
logy	
nt)	

C 3. Environmental factors are limiting
O
N on the numbers of organisms living
C
E within their influence, thus, each
P
T environment has a carrying capacity.

Discipline Area Languag

Subject Readin

Problem Orientation Car
Cap

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: After reading the novel, the student will list in logical order the steps necessary to establish a wildlife sanctuary. Affective: The student will specify that the carrying capacity of an area is determined by certain ecological factors. The book or movie illustrates these factors.	I. Student-Centered in class activity A. Class oriented activity 1. Read Paul Annixter's Swiftwater. 2. List the steps in their proper order, the Calloways used to realize the dream of a lifetime of establishing a sanctuary for wild geese which pass over the Maine Woods twice each year. 3. Compare the book, Swiftwater, with the Disney movie from the book, Those Calloways.
Skills to be Learned Arrange facts in a special order Research the life cycle of the Canadian goose Compare and contrast through various media	

onmental factors are limiting

umbers of organisms living — Discipline Area Language Arts

heir influence, thus, each — Subject Reading

ent has a carrying capacity. — Problem Orientation Carrying Capacity Grade 8

IORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
After reading the student will gical order the ssary to establish sanctuary. The student will at the carrying f an area is by certain factors. The vie illustrates ors.	I. Student-Centered in class activity A. Class oriented activity 1. Read Paul Annixter's Swiftwater. 2. List the steps in their proper order, the Calloways used to realize the dream of a lifetime of establishing a sanctuary for wild geese which pass over the Maine Woods twice each year. 3. Compare the book, Swiftwater, with the Disney movie from the book, Those Calloways.	II. Outside Resource and Community Activities A. Out of class 1. Research the flyway sanctuaries of Wis. Then develop a plan in well-formed paragraphs that will further the species of the Canadian goose.
be Learned acts in a special the life cycle of dian goose nd contrast various media		

Resource and Reference Materials	Continued and Additional Su
Publications: Books: Swiftwater, Paul Annixter National Wildlife, Ranger Rick's Audio-Visual: Community:	

ence Materials	Continued and Additional Suggested Learning Experiences
nnixter Ranger Rick's	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area

Subject

Problem Orientation E.P

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXP	
Cognitive: Through an outline the student will evaluate the effects of various forms of water pollution on man's environment in different periods of history. Affective: The student will challenge or defend the statement that the pollution of man's environment increased in proportion to the development of civilization	I. Student-Centered in class activity 1. Read Henry Wadsworth Longfellow's Evangeline, Parts II and III. 2. Develop a list of phrases that depict the author's description of the undisturbed waterway of the Mississippi River of the 18th century. 3. In outline form, evaluate at least four villains of our water supply and their possible solutions.	II. C 1. r f p f 2. i c o c t
Skills to be Learned Picking out descriptive phrases Observe and organize Outlining		

quate supply of pure water
ial for life.

Discipline Area Language Arts
Subject Evaluation
Problem Orientation E.P.A. Water Grade 8

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
rough an out- dent will eval- ects of various er pollution on nment in differ- of history. he student will defend the at the pollution ironment in- roportion to the of civilization	I. Student-Centered in class activity 1. Read Henry Wadsworth Longfellow's *Evangeline*, Parts II and III. 2. Develop a list of phrases that depict the author's description of the undisturbed waterway of the Mississippi River of the 18th century. 3. In outline form, evaluate at least four villains of our water supply and their possible solutions.	II. Outside Resource and Community Activities 1. Observe a stream or river of the community for effects of water pollution and organize findings. 2. Collect samples from local stream-bring to class-write descriptions of each sample after close observation.... touching, smelling, etc.
Learned descriptive organize		

Resource and Reference Materials	Continued and Additional Sug
Publications: "Evangeline" by Henry Wadsworth Longfellow Excerpts from Walden Bond Excerpts from "The Sea Around Us" R. Carson - (parts on water's origin) **Audio-Visual:** **Community:**	

e Materials	Continued and Additional Suggested Learning Experiences
Wadsworth Bond a Around Us" n water's	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT: An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food. (#5)

Discipline Are

Subject

Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED
Cognitive: After reading the novel, the student will identify forms of air pollution in the 19th and 20th centuries through an informative article written to summarize these forms. Affective: Using the novel, A Christmas Carol, the student will attempt to contrast air pollution of that time with the present.	I. Student-Centered i class activity 1. Read Dickens' A Christmas Carol "Marley's Ghost" 2. Identify the var sources of air poll of London to the 20 century air polluti of our area.
Skills to be Learned Ability to identify facts. Compare and contrast data. Write an article.	

te supply of clean air is
because most organisms de-
espiration to supply the
eded to release the energy
food. (#5)

Discipline Area Language Arts
Subject Written Expression
Problem Orientation E.P.A. Air Grade 8

IORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
After reading the student will identi- air pollution in d 20th centuries informative article summarize these Using the novel, Carol, the stu- ttempt to contrast on of that time esent.	I. Student-Centered in class activity 1. Read Dickens' A Christmas Carol "Marley's Ghost" 2. Identify the various sources of air pollution of London to the 20th century air pollution of our area.	II. Outside Resource and Community Activities 1. Observe the presence of air pollution by the senses of sight and smell in our locality. 2. Collect photographs of local and national pollution.
e Learned identify facts. d contrast data. rticle.		

Resource and Reference Materials	Continued and Additional
Publications: Charles Dickens' "A Christmas Carol"	
Audio-Visual:	
Community:	

ence Materials	Continued and Additional Suggested Learning Experiences
,	

CONCEPT 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area Lar

Subject Ora

Problem Orientation Nat Res

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: By the use of posters, speeches, letters, and planning in a class meeting, the students will develop a project for the collecting of cans & bottles for recycling. Affective: The students will evaluate the amount of materials used by a household & community. Each time they prepare a can or bottle for recycling they will be promoting concern for conservation of material resources.	I. Student-Centered in class activity	II.
Skills to be Learned Organization & planning of a cooperative effort. Conducting a meeting & involving every member of a group		

resources are not equally

over the earth or over   Discipline Area Language Arts

eatly affect the geographic   Subject Oral Expression

and quality of life.   Problem Orientation Natural Resources   Grade 8

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
y the use of ches, letters, in a class students will ject for the cans & bot- cling. he students the amount used by a ommunity. y prepare a for recycling promoting con- ervation of urces.	I. Student-Centered in class activity	II. Outside Resource and Community Activities 1. Make arrangements for disposing of bottles & cans collected, i.e. establish a business relation with a collecting point. 2. Learn how to sort materials according to salvage specifications. 3. Learn to identify materials. 4. Pursue the steps through which salvage materials pass in producing a new product. 5. Be alert to any other waste materials & possibilities for recycling.
Learned & planning of effort. meeting & ry member of		

Resource and Reference Materials	Continued and Additional Suggest
Publications: 30 Basic Speech Experiences, Clark Publishing Co. elementary edition of Robert's Rules of Order. newspapers magazines	
Audio-Visual:	
Community: resource people who are connected with any phase of recycling of salvage materials	

est Materials	Continued and Additional Suggested Learning Experiences
nces, Clark	
obert's Rules	
se e	

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7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area

Subject

Problem Orienta

BEHAVIORAL OBJECTIVES	SUGGESTED L
Cognitive: By writing an editorial, each student will express his opinion on how increased leisure time & the use of snowmobiles have influenced change in land use in his locality. Affective: The student will defend his own feelings on the issue that land use is being changed by the use of snowmobiles.	I. Student-Centered in cla activity A. Classroom 1. Examples of editor will be presented t the students. 2. Class will discuss the editorial style writing compares wi other expository wr 3. Each student will express his own opi concerning the char land use by snowmob 4. Editorials will be published as a clas newspaper.
Skills to be Learned Identifying the editorial style of writing Writing in the editorial style	

such as facilitating transportation,
nditions, population growth, Discipline Area Language Arts
ed leisure time have a great Subject Writing (editorials)
n changes in land use and Problem Orientation Land Use Grade 8
population density.

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
y writing an ch student will pinion on how sure time & the biles have ange in land cality. he student will n feelings on t land use is by the use of **Learned** the editorial iting he editorial	I. Student-Centered in class activity A. Classroom 1. Examples of editorials will be presented to the students. 2. Class will discuss how the editorial style of writing compares with other expository writing. 3. Each student will express his own opinion concerning the change in land use by snowmobiles. 4. Editorials will be published as a class newspaper.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggestec
Publications: Newspapers **Audio-Visual:** **Community:**	

ec	Materials	Continued and Additional Suggested Learning Experiences

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8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area L

Subject L

Problem Orientation A

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Students will picture an example of pollution in his own personal environment by a collage. By another collage, he will propose a possible solution to this pollution problem. **Affective:** Students will share with other individuals the idea that most pollution problems can be resolved.	I. Student-Centered in class activity 1. Collect illustrations to portray problems & solutions by use of a collage.	II
Skills to be Learned Observation Brainstorming Collage Interview Gathering Illustrations		

nomic, social, and
s determine status
and attitudes
onment.

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Attitudes Grade 8

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
ts will of pol- personal ollage. , he will solutio problem. ts will ndivi- t most can be	I. Student-Centered in class activity 1. Collect illustrations to portray problems & solutions by use of a collage.	II. Outside Resource and Community Activities 1. Observe the local environment and list the examples of pollution observed. 2. Determine as many solutions as possible by discussing with parents and others or by brainstorming in class. 3. Interview local citizens who are associated with a pollution problem. (Tape record or take notes) It would be desirable to get as many points of view as possible The object of interviews would be to become aware of problems and possible solutions.
ed ations		

Resource and Reference Materials	Continued and Additional Suggested
Publications: papers and magazines Audio-Visual: any appropriate poster materials original creations to supplement illustrations, if needed Community: interview local citizens	

als	Continued and Additional Suggested Learning Experiences
ls nt	

CONCEPT 9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area Language

Subject Language

Problem Orientation Land

BEHAVIORAL OBJECTIVES

Cognitive: Through observation, organization & communication, the students will provide a series of graphic illustrations to portray a change in the environment.

Affective: The student will survey the changes in the environment produced by man's activities & the created effects which might be beneficial or destructive or both.

Skills to be Learned

- Observing
- Communicating by vision & words
- Organizing sequence
- Photography
- Drama

SUGGESTED LEARNING EXP

I. Student-Centered in class activity
  A. Classroom activity
    1. The class may want to make a list of sites to observe such as:
      a. Installation of sewerage disposal system.
      b. Any building construction site.
      c. Development of a wildlife aanctuary.
      d. Building or altering of a road or highway.
      e. Conservation practices in connection with a lake or stream
      f. Beautification of any lake, stream, any grounds, lawn, park, wayside, etc.
      g. Fish hatchery or wild game farm.

II. Out
  Comm
  A. L
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Discipline Area Language Arts

Subject Language Arts

Problem Orientation Land Use Grade 8

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom activity
    1. The class may want to make a list of sites to observe such as:
      a. Installation of sewerage disposal system.
      b. Any building construction site.
      c. Development of a wildlife aanctuary.
      d. Building or altering of a road or highway.
      e. Conservation practices in connection with a lake or stream
      f. Beautification of any lake, stream, any grounds, lawn, park, wayside, etc.
      g. Fish hatchery or wild game farm.

II. Outside Resource and Community Activities
  A. Local project
    1. Select a construction project to take place in the local vicinity.
    2. Observe the site prior to any change & photograph (slides) areas to be changed. Use students to pose & direct attention to selected features.
    3. Do the same during development operations.
    4. Continue recording, by photographic slides, after changes are complete.
    5. Plan & execute narration by tape recordings with student voices or printed captions.
    6. Emphasis is to be placed on ecological effects, pro & con.

Resource and Reference Materials	Continued and Additional Sugges
Publications: **Audio-Visual:** **Community:**	

terials s	Continued and Additional Suggested Learning Experiences

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Languag

Subject Debate

Problem Orientation Recy

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Through a debate-form discussion, the student will develop an awareness that there is more than one point of view to any issue. Affective: The student's will actively participate in a recycling project in their community.	I. Student-Centered in class activity 1. With the help of current publications, define the term of "recycling," for example, cans and bottles. 2. Divide the class in two groups. One group will expand all possible advantages to recycling and the other group the disadvantages. 3. Upon collecting all materials and facts, a debate-form discussion will follow.	II.
Skills to be Learned Reference reading Organizing a debate Participating in a debate		

term economic gains may

g-term environmental Discipline Area Language Arts

Subject Debate

Problem Orientation Recycling Grade 8

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Through a discussion, will devel- ness that e than view to The student's y participate ng project munity.	I. Student-Centered in class activity 1. With the help of current publications, define the term of "recycling," for example, cans and bottles. 2. Divide the class in two groups. One group will expand all possible advantages to recycling and the other group the disadvantages. 3. Upon collecting all materials and facts, a debate-form discussion will follow.	II. Outside Resource and Community Activities
Learned eading a debate ng in		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Basic Speech Experiences, Clark Publishing Co. Speaking By Doing, National Textbook Co. Magazines and other current publications	
Audio-Visual: Debate film	
Community: Local newspapers	

e Materials	Continued and Additional Suggested Learning Experiences
es, Clark	
onal	
rrent	

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11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language A

Subject Oral Expre

Problem Orientation Pollut

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: By research and interview, the students will through critical thinking realize that there is more than one point of view on an issue. Affective: The student will accept or challenge another point or view.	I. Student-Centered in class activity	II. Out Comm 1. C ma su 2. M an 3. D in 4. S pe on a. b. c. d. e. f.
Skills to be Learned Speaking-Role playing Listening Critical thinking Ability to organize information		

acts, duplicated

produce significant

lterations over time.

Discipline Area Language Arts

Subject Oral Expression

Problem Orientation Pollution Grade 8

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
arch ugh is t of dent llenge iew.	I. Student-Centered in class activity	II. Outside Resource and Community Activities 1. Collect newspaper and magazine articles on a subject. 2. Make notes on newscasters and commentaries. 3. Discuss issues with people in all walks of life. 4. Search out and interview people who are authorities on a subject such as: a. Kinds of detergents b. Use of public waters c. Use of pesticides d. Use of herbicides e. Use of fuels f. Kinds of power plants
ed ying ze		

Resource and Reference Materials	Continued and Additional Sugge
Publications: Newspapers Magazines	
Audio-Visual: Radio TV	
Community: Letter writing Interviews	

nce Materials	Continued and Additional Suggested Learning Experiences

C 12. Private ownership must be
O
N regarded as a stewardship and
C
E should not encrouch upon or violate
P
T the individual right of others.

Discipline Area Languag
Subject Newspap
Priv
Problem Orientation Owne

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: After finding newspaper or magazine articles which are examples of conflict between private ownership & the rights of others, students will discuss the rights of individuals. **Affective:** Students will accept the human value of considering the rights of private ownership & rights of public domain.	I. Student-Centered in class activity	II
Skills to be Learned Reading Discussion		

ership must be

stewardship and

rouch upon or violate

right of others.

Discipline Area Language Arts

Subject Newspaper Reading

Problem Orientation Private Ownership Grade 8

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
r finding azine re examples een private rights of will ts of ents will value of rights of p & rights .	I. Student-Centered in class activity	II. Outside Resource and Community Activities A. Library 1. After completing a newspaper unit, the students could search for article in various papers & magazines that would relate to the concept. 2. Each student will read the article he found. 3. The class will discuss whose rights and who's right.
rned		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Sand County Almanac by Aldo Leopold. Balentine Books not reference for students but for teacher preparation Newspapers Magazines	
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
Aldo Leopold. ference for er	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as nee

In commenting on each episode used in your class, you may wi format. Please feel free to adapt it and add more pages. Let us comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

on each episode used in your class, you may wish to duplicate this suggested
eel free to adapt it and add more pages. Let us know all your critiques and
ive and positive.

Objectives
e:

e:

loped

earning Experiences
:

& Community Activities

source & Reference Materials
ggestions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONM

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 9

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
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Robert Wa
Robert Ke
George Ho

E INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 9

Title III E.S.E.A.
in CESA's 3-8-9
t
onsin 54301

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, help is
of over a hundred teachers, year long meetings, a summer workshop
ecologists, this guide means realistic, developed aid for you. Pl
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are desi
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your
   to adapt, adopt, or use. Be design, the range of suggestions i
   mentation and usage are even wider. Many episodes are self-cont
   others can be changed in part or developed more keenly over a
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning e
   plan. The reasons are simple. No guide has all the answers a
   unless viewed in the context of your classroom situation. Thus
   give it a triple reading, check over the resources listed, make
   prime your students, and seek help. The Project personnel and
   knowledgement page stand ready to aid your efforts. Feel free
4. The Project Resource Materials Center serves all CESA 3, 8, an
   private. We will send available materials pre-paid. Call for
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library
   Center materials. Please offer suggestions, comments, or advic
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch
   suggestions on the episode pages or use the attached evaluation
   lected in late May next year and will be used in our revisions.
   reactions and suggestions--negative and positive. Please note
   in the episodes may refer to specific, local community resource
   cases, individual school districts and teachers will have to ad
   stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--surviva
   Creation's beauty and complexity--often noted as the work of a
   and human energy to save. A year's work by a hundred of your f
   gesture. Without you, their work will crumble, and so might we
   let us live to think, feel, and act in harmony with our world.

1. Cognitive means a measurable mental skill, ability, or proce
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cog
4. EPA - Environmental Problem Area.

PREFACE

excite students about their environment, help is ready. Thanks to the efforts
d teachers, year long meetings, a summer workshop, university consultants and
guide means realistic, developed aid for you. Please note the following ideas
ted teachers in writing and editing this guide.
supplementary in nature and the episodes are designed--at appropriate instan-
into existing, logical course content.
episode offers suggestions. Since you know your students best, you decide what
pt, or use. Be design, the range of suggestions is wide; your chances for experi-
usage are even wider. Many episodes are self-contained, others open-ended, still
changed in part or developed more keenly over a few weeks. These built-in
allow you to explore.
hat you try the episodes and suggested learning experiences but please pre-
asons are simple. No guide has all the answers and no curriculum will work
in the context of your classroom situation. Thus, before trying an episode,
ble reading, check over the resources listed, make mental and actual notes,
udents, and seek help. The Project personnel and teachers listed on the ack-
page stand ready to aid your efforts. Feel free to ask their help in pre-planning.
esource Materials Center serves all CESA 3, 8, and 9 area schools--public and
will send available materials pre-paid. Call for any help, materials, or to
432-4338.
he Project ICE Bibliography in your school library for available Resource
als. Please offer suggestions, comments, or advice--at any time--so that this
row. Let's help each other.
lf with the guide by reacting to it with scratch ideas, notes, and extended
the episode pages or use the attached evaluation format, which will be col-
May next year and will be used in our revisions. We sincerely want your
suggestions--negative and positive. Please note that some resources listed
s may refer to specific, local community resources or conditions. In such
ual school districts and teachers will have to adopt local or available sub-
ist of terms pertinent to the episodes is below.
other experts have simplified the issue--survival--yours, mine, our students,
uty and complexity--often noted as the work of a genius--will take our genius
gy to save. A year's work by a hundred of your fellow teachers is a saving
out you, their work will crumble, and so might we all--literally. Instead,
think, feel, and act in harmony with our world.

Editorial Board

eans a measurable mental skill, ability, or process based on factual data.
efers to student attitudes, values, and feelings.
Acceptable Performance Will Include (labels a cognitive or mental performance.)
onmental Problem Area.

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Marinette
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Cath. Central
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ng, Marinette
idge, White Lake
sl, White Lake
Lena
Gillett
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W-Marinette
rds, UW-Marinette

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John Hussey, Green Bay
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Dennis Bryan, UWGB

CONCEPT

1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area La

Subject My

Problem Orientation En

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to compare & contrast modern & ancient concepts of sun and of god and write an essay illustrating the importance of the sun on his life through the study of mythology.

Affective: Using brainstorming, research, interviewing, theme writing, & teamwork, students will understand the importance of the sun in their own lives.

Skills to be Learned

- List in importance
- Formulate reasons
- Research
- Construct a chart
- Survey & interview
- Compare & contrast
- Write an essay

SUGGESTED LEARNING

I. Student-Centered in class activity
1. Form the students in "brainstorming" groups to list natural phenomenon or resources which they think are important to them.
2. After formulating a list, let each group come up with the three most important resources along with reasons why they are important.
3. Let each group have a spokesman who presents the list and the reasons for selection.
4. Present Greek & Roman gods and what they stand for. Stress the importance of Phoebes Apollo, the sun god, and the ancient idea of a god, why did they construct the various mythological gods.
5. Construct a chart showing the various things that were dependent on the sun during ancient times.
6. Compare & contrast the ancient and modern concepts of the sun & of god. Determine (Cont.)

II.

sun, the basic source

converted through Discipline Area Language Arts

s into a form all Subject Mythology

use for life pro- Problem Orientation Energy Use Grade 9
cesses.

CTIVES	SUGGESTED LEARNING EXPERIENCES	
ent are ancient of god illus- ce of through gy. ain- inter- ng, & ill tance own	I. Student-Centered in class activity 1. Form the students in "brainstorming" groups to list natural phenomenon or resources which they think are important to them. 2. After formulating a list, let each group come up with the three most important resources along with reasons why they are important. 3. Let each group have a spokesman who presents the list and the reasons for selection. 4. Present Greek & Roman gods and what they stand for. Stress the importance of Phoebes Apollo, the sun god, and the ancient idea of a god, why did they construct the various mythological gods. 5. Construct a chart showing the various things that were dependent on the sun during ancient times. 6. Compare & contrast the ancient and modern concepts of the sun & of god. Determine (Cont.)	II. Outside Resource and Community Activities 1. Do research in library why the Greeks & Romans worshipped the sun & made it into a god. Read stories of Apollo & other gods. 2. Have the class survey various people to procure their concepts of the sun & of god. Present findings in class. 3. Have students tape interviews with members of the community relative to the importance of the sun & weather to their business.

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: Gods, Heroes, and Men of Ancient Greece, W. H. D. Rouse, Signet. Ancient Myths, Norma L. Goodrich. Mentor paperback. Outlooks Through Literature, Pooly, Scott, Foresman. Understanding Literature, Wofford, Ginn & Co.	I. (Cont.) which concept is more valid. 7. Teacher inform students that the it makes us appreciate the sun and 8. Students will evaluate their inter how things are dependent on the sur 9. In a theme, the students will disc to them if sunlight no longer illur 10. The students will read stories o teacher will show filmstrips with s them extemporaneously through thei
Audio-Visual: filmstrips slides tape recorder	
Community:	

ials	Continued and Additional Suggested Learning Experiences
ent het.	I. (Cont.) which concept is more valid.
rich.	7. Teacher inform students that the value of myths is that it makes us appreciate the sun and other resources.
Pooly,	8. Students will evaluate their interviews for logic & how things are dependent on the sun.
fford,	9. In a theme, the students will discuss what would happen to them if sunlight no longer illuminated the earth.
	10. The students will read stories of gods. Then the teacher will show filmstrips with students narrating them extemporaneously through their knowledge.

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CONCEPT

2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Are

Subject

Problem Orient

BEHAVIORAL OBJECTIVES

Cognitive: After studying the school as a miniature ecosystem, each student will present a formal speech illustrating the relationship within another ecosystem.

Affective: Using research and teamwork, students will understand the complexities of an ecological problem as demonstrated by the formulation of an ecosystem.

Skills to be Learned

Research
Organize
Cooperate
Develop cause and effect relationships

SUGGESTED LEAR

I. Student-Centered in class activity

1. Bring in resource person (could be science teacher), to explain the concept in a formal speech. Discuss the organization of the presented speech and the meaning of the concept.
2. Show how the school is a miniature ecosystem. Have students interview various teachers, administrators, coaches, cooks, janitors, office help and other students. In interviews students will try to determine on whom and on what each person is dependent, who or what is dependent on this person, and with whom or what each person interacts and associates. Students will pool their findings in class and with the teacher's assistance, formulate the ecosystem of their school.

(cont.)

ng organisms interact

elves and their environment,

intricate unit called an

Discipline Area Language Arts

Subject English

Problem Orientation Ecosystem Grade 9

L OBJECTIVES

er studying
a miniature
n student
formal
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ng research
students
d the com-
n ecological
onstrated by
n of an

earned

and effect

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Bring in resource person (could be science teacher), to explain the concept in a formal speech. Discuss the organization of the presented speech and the meaning of the concept.
2. Show how the school is a miniature ecosystem. Have students interview various teachers, administrators, coaches, cooks, janitors, office help and other students. In interviews students will try to determine on whom and on what each person is dependent, who or what is dependent on this person, and with whom or what each person interacts and associates. Students will pool their findings in class and with the teacher's assistance, formulate the ecosystem of their school.

(cont.)

II. Outside Resource and Community Activities

Resource and Reference Materials

Publications:
"Speaking by Doing"
National Textbook Co.
Skokie, Ill.
Magazine:
"Vital Speeches"

Audio-Visual:
Filmstrip: "Man-Managed Ecosystems"
McGraw -Hill
Bulletin board display

Community:
Science teacher or university
teacher knowledgeable of
ecosystems.

Continued and Additional Suggested ial

I. (cont.)

3. Each student will pick one m
living, plant or animal) with
In the speech, each student wi
factors to the selected member
4. Research period in the libra
factors which are to be associa
the ecosystem. Class period t
and to organize scheme of ecol
of appearance. Teacher will as ste
and appoint one member of each
of the ecosystem.
5. One person from each group w
each day.
6. Class will make comments on
7. Have class try to relate ec y
end of #7.
8. Have a member from each of t
growing ecosystems daily so th
growing interaction of the eco
9. As a final activity, someone
olate beyond the scope of the
Options are:
student
teacher and student
team teachers
resource person

als	Continued and Additional Suggested Learning Experiences
tems"	I. (cont.) 3. Each student will pick one member of the ecosystem (non-living, plant or animal) with which to develop a speech. In the speech, each student will relate two additional factors to the selected member of the ecosystem. 4. Research period in the library to discover the two reliable factors which are to be associated with the chosen member of the ecosystem. Class period to share research findings and to organize scheme of ecological topics in the order of appearance. Teacher will assign the order of appearance and appoint one member of each group to chart the growing of the ecosystem. 5. One person from each group will present his formal speech each day. 6. Class will make comments on students' presentations. 7. Have class try to relate ecosystems to each other at end of #7. 8. Have a member from each of the three groups chart the growing ecosystems daily so that students visually see the growing interaction of the ecosystems. 9. As a final activity, someone will summarize and/or extrapolate beyond the scope of the three ecosystems presented. Options are: student teacher and student team teachers resource person

C 3. Environmental factors are limiting
O
N on the numbers of organisms living
C
E within their influence, thus, each
P
T environment has a carrying capacity.

Discipline Area La

Subject Er

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: The student will be able to pick out examples of overloading the carrying capacity of some area & to express this misuse of the environment through the presentation of a TV commercial. Affective: The student will display his understanding that an area can support only a limited number of organisms, through a satirical commercial highlighting the problem.	I. Student-Centered in class activity A. Class 1. Play record of America, the Beautiful, along wit pictures or slides of hc man has exceeded or dis- rupted the carrying capa city of his environment. 2. Cram the student's desk in as small an area as possible. Analyze what overloading of the carry capacity can do. Compare the class setup to city- form setup or what an ov populated area does to its environment. 3. Analyze some current T\ commercials as to style, information, wording, pr etc. so students can wri a commercial which is environmentally oriented 4. Write a TV commercial, Cutting auto production clean water; returnable bottles; & population cc 5. Present commercials ora class with appropriate
Skills to be Learned Critical observation of community Analyze & evaluate Write persuasively Speak clearly & persuasively with the aid of props	

e limiting

living Discipline Area Language Arts

s, each Subject English

capacity. Problem Orientation Carrying Capacity Grade 9

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class
    1. Play record of America, the Beautiful, along with pictures or slides of how man has exceeded or disrupted the carrying capacity of his environment.
    2. Cram the student's desks in as small an area as possible. Analyze what overloading of the carrying capacity can do. Compare the class setup to city-form setup or what an over-populated area does to its environment.
    3. Analyze some current TV commercials as to style, information, wording, props, etc. so students can write a commercial which is environmentally oriented.
    4. Write a TV commercial, i.e. Cutting auto production; clean water; returnable bottles; & population control.
    5. Present commercials orally in class with appropriate props.

II. Outside Resource and Community Activities
  A. Outside work
    1. Have students observe in their community & come up with overloading of carrying capacity. (traffic jams, overcrowded slums, water pollution, etc.)

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: Audio-Visual: Newspaper, TV & Radio Commercials Slide projector Record player 35 mm camera - take slides for activities Various props, such as pictures or facimilies of products, etc. Community:	

erials	Continued and Additional Suggested Learning Experiences
rcials for ures etc.	

CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area Langua

Subject Speech

Problem Orientation Pu

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: The student will be able to associate pure water with life as shown by his prepared reading. Affective: Using prepared reading, student will understand the necessity of an adequate supply of pure water as shown by his research and discussion of written materials dealing with the subject.	I. Student-Centered in class activity A. Class activity 1. Students & teachers will discuss what makes an effective reading, such as the need for preparation, for fluency, for modulating the voice, projecting, & making a good appearance (stand erect, hands out of pockets, etc.). 2. Students will select a newspaper article, poem, story, or original writing and emphasize man's or animal's need for pure water. 3. Students will present their readings to the class. 4. The reader will lead the class in analyzing & evaluating critically, the content of the story. 5. Class will pick the 3 best readings which could be presented in other English classes.
Skills to be Learned Clear voice control Eye contact Oral interpretation	

supply of pure

al for life.

Discipline Area Language Arts

Subject Speech - Readings

Problem Orientation Pure Water Grade 9

BJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
tudent will ate pure s shown by ing. prepared will cessity of y of pure his ussion of dealing ned rol ion	A. Class activity 1. Students & teachers will discuss what makes an effective reading, such as the need for preparation, for fluency, for modulating the voice, projecting, & making a good appearance (stand erect, hands out of pockets, etc.). 2. Students will select a newspaper article, poem, story, or original writing and emphasize man's or animal's need for pure water. 3. Students will present their readings to the class. 4. The reader will lead the class in analyzing & evaluating critically, the content of the story. 5. Class will pick the 3 best readings which could be presented in other English classes.	

Resource and Reference Materials	Continued and Additional Sugges
Publications: The Sun Around Us, R. Coran Audio-Visual: Film: Still Waters, as described in: An Annotated Checklist of 200 Short Films for Writing Classes, Ill. Assoc. of Teachers of English, Urbana, Ill. Filmstrip: Crisis of the Environment, The New York Times, 1970, KT6 (5 filmstrips & records) Community:	

rials	Continued and Additional Suggested Learning Experiences
in: 200 asses, English	
The (5	

C
O
N
C
E
P
T

5. An adequate supply of clean air is essential because most organisms depend on oxygen through respiration, to release the energy in their food.

Discipline Area Lang

Subject Impr

Problem Orientation Clea

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E	
Cognitive: The student will be able to discuss the need for clean air as demonstrated by giving a speech before the class. Affective: Using the approach of the continued story, students will be able to relate what happens when there is no longer a supply of clean air. Skills to be Learned Poise and continuity of thought using ecological material Reasoning out the food chain	I. Student-Centered in class activity 1. Teacher should compile a list of words dealing with air pollution, lack of oxygen, and death(e.g.- diseased, morbid, tainted, poisoned, withered, rotten, shrivel, palsied) 2. Teacher will start telling a story of man's annihilation due to lack of clean air, which students will continue, using the selected words. Students will be required to talk at least one minute. 3. Class discussion should follow focusing on man's need for clean air. 4. With aid of students, teacher will make an overhead transparency concentrating on this problem. 5. Possible activity: creative writing. a. Existence in a world without automobiles b. Science fiction-life on an airless planet.	II.

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ate supply of clean air is
ecause most organisms
xygen through respiration,
the energy in their food.

Discipline Area Language Arts
Subject Impromptu Speaking
Problem Orientation Clean Air Grade 9

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
he student to discuss clean air as by giving re the class. sing the he continued ts will be e what happens no longer a an air.	I. Student-Centered in class activity 1. Teacher should compile a list of words dealing with air pollution, lack of oxygen, and death(e.g.- diseased, morbid, tainted, poisoned, withered, rotten, shrivel, palsied) 2. Teacher will start telling a story of man's annihilation due to lack of clean air, which students will continue, using the selected words. Students will be required to talk at least one minute. 3. Class discussion should follow focusing on man's need for clean air. 4. With aid of students, teacher will make an overhead transparency concentrating on this problem. 5. Possible activity: creative writing. a. Existence in a world without automobiles b. Science fiction-life on an airless planet.	II. Outside Resource and Community Activities
Learned ntinuity of ecological t the food		

Resource and Reference Materials	Continued and Additional Sug
Publications: Roget's Thesaurus newspaper articles 30 Basic Speech Experiences, Clark Publishing.	
Audio-Visual: Overhead transparencies	
Community:	

ce Materials	Continued and Additional Suggested Learning Experiences
eriences,	
es	

C 6. Natural resources are not equally
O
N distributed over the earth or over — Discipline Area ___ Lang
C
E time and greatly affect the geographic — Subject ___ Comp
P
T conditions and quality of life. — Problem Orientation ___ Natu Reso

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: The student will be able to demonstrate in writing the ability to distinguish man's points from supporting statements in paragraph writing, e.g. paragraph about concept #6. Affective: The student, by arranging a group of sentences dealing with natural resources in proper order to make a coherent paragraph, will not only show his understanding of writing skills, but will also show his awareness of natural resources and how they affect geographic conditions through the discussion of the topic.	I. Student-Centered in class activity 1. Give students a jumbled paragraph of about 7-8 sentences dealing with #6. a. Discuss how the paragraph should be by numbering sentences in proper order. b. Show how the topic sentence is supported by the other sentences & the function they serve. c. Discuss the meaning of the paragraph.	II. C 1 2
Skills to be Learned Be able to distinguish the main parts in a paragraph about concept #6 above from the supporting ideas, e.g. examples, chronology, statistics, transitions, & conclusions.		

rces are not equally
the earth or over
affect the geographic
uality of life.

Discipline Area Language Arts
Subject Composition
Problem Orientation Natural Resources Grade 9

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
udent monstrate lity to points atements ng, e.g. ncept #6. udent, up of with in proper herent t only ding of t will eness es and ographic the topic.	I. Student-Centered in class activity 1. Give students a jumbled paragraph of about 7-8 sentences dealing with #6. a. Discuss how the paragraph should be by numbering sentences in proper order. b. Show how the topic sentence is supported by the other sentences & the function they serve. c. Discuss the meaning of the paragraph.	II. Outside Resource and Community Activities 1. Look up information on #6 from biology, social studies & geography books. Take one of the topics & write a good, solid paragraph. 2. Have a group of the students interview the mayor and/or the city planner to discover why the population is moving in the direction it is moving regarding housing, business, and recreation areas. Prepare a display for the PTA meeting showing projected distribution of population because of natural resources & quality of life. Have students available for the parents to discuss with them this vital issue.
ed guish the ragraph bove from as, e.g. gy, stati- , & con-		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Handbook for Environmental Action, Environmental Science Center, 5400 Glenwood Avenue, Minneapolis, Minn. 55422. Ten Years to Save Mankind, Department of Natural Resources, State of Michigan, Lansing, Mich. Elements of Style by William Strunk. Audio-Visual: Community:	

Materials	Continued and Additional Suggested Learning Experiences
tal Action, Center, Minneapolis,	
nd, Depart- rces, State Mich. lliam	

CONCEPT

7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

Discipline Area Language A

Subject English

Problem Orientation Leisure

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE
Cognitive: Given excerpts from the Hidden Persuaders & discussion of various product demands, the student will be able to show how people's demands affect the environment as demonstrated by the study & oral presentation of commercials. Affective: Using commercials as examples, students will be able to explain to the class what happens to the environment when people's demands increase.	I. Student-Centered in class activity A. Classroom 1. Read & discuss excerpts from The Hidden Persuaders. 2. Students and/or teacher can tape a variety of commercials, class discussion of content appeal, & persuasive tactics. 3. Discuss what would result if everyone did buy one certain product. How would this affect the economy? the population? land use? transportation facilities of that area?
Skills to be Learned Speaking Cause & effect Use of tape recorder	

as facilitating transportation,

ons, population growth, Discipline Area Language Arts

isure time have a great Subject English

nges in land use and Problem Orientation Leisure Time Grade 9
ation density.

JECTIVES	SUGGESTED LEARNING EXPERIENCES	
excerpts rsuaders rious he student ow how ffect the onstrated l presenta- s. commercials nts will to the to the eople's	I. Student-Centered in class activity A. Classroom 1. Read & discuss excerpts from The Hidden Persuaders. 2. Students and/or teacher can tape a variety of commercials, class discussion of content appeal, & persuasive tactics. 3. Discuss what would result if everyone did buy one certain product. How would this affect the economy? the population? land use? transportation facilities of that area?	II. Outside Resource and Community Activities A. Outside classroom 1. Have students bring in past & present pictures of their community to show how it has changed because of certain products & industry. 2. Students bring in real or fictitious products with which to present commercials centered around a product that could be produced in their own area. 3. Discuss the effects that these products would have on the community.
ed der		

Resource and Reference Materials	Continued and Additional Suggested
Publications: The Hidden Persuaders, Vance Packard Magazine, Advertizing Age Audio-Visual: Ads from magazines for discussion Tape recordings of commercials Picture & art drawings of products Community: Courthouse or newspaper publisher for pictures of community	

rials	Continued and Additional Suggested Learning Experiences
ssion ls	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area La

Subject En

Problem Orientation At

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The student will be able to write a dialogue showing how man feels toward his environment. Affective: Using interviewing and dialogue-writing techniques, the student will display awareness that man's culture and financial resources determine his attitude toward his environment.	I. Student-Centered in class activity 1. Read a novel or short story dealing with ethnic customs or money. Discuss how ethnic customs & money influence the value of the characters. 2. Students collect & bring in pictures of various economic areas. Discuss what values brought about this particular condition. To change that condition, decide what attitudes must be changed. Also discuss if this new conditon is good or bad and why. 3. Students bring to class examples of dialogue - discuss the type of person and type of values contained in these examples. 4. Choose a common ecological problem. Each student has an occupation & the class discusses how each can help to solve the problem & what values each have. 5. Some dialogue could be acted out and tape recorded.	II.
Skills to be Learned Discussion Interviewing Carry on a dialogue concerning a community problem resulting from man's value.		

conomic, social, and
ors determine status
s and attitudes
ironment.

Discipline Area Language Arts
Subject English
Problem Orientation Attitudes Grade 9

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
student write ng how his g inter- ogue- es, the splay an's culture sources titude ronment. rned ogue munity g from	I. Student-Centered in class activity 1. Read a novel or short story dealing with ethnic customs or money. Discuss how ethnic customs & money influence the value of the characters. 2. Students collect & bring in pictures of various economic areas. Discuss what values brought about this particular condition. To change that condition, decide what attitudes must be changed. Also discuss if this new conditon is good or bad and why. 3. Students bring to class examples of dialogue - discuss the type of person and type of values contained in these examples. 4. Choose a common ecological problem. Each student has an occupation & the class discusses how each can help to solve the problem & what values each have. 5. Some dialogue could be acted out and tape recorded.	II. Outside Resource and Community Activities 1. Each student will interview some adult in the community concerning the ecological problem. Each student will write up the interview, using dialects, slang, idioms, as a dialogue.

Resource and Reference Materials	Continued and Additional
Publications:	
One Hundred Dollor Misunderstanding by Robert Gover.	
Writing Fiction by R.V. Cassil.	
Diction and Style in Writing by Richard Altuk.	
The Effective Theme by Waldow Stegner.	
Elements of Style by Wm. Strent.	
Audio-Visual:	
Magazine & newspaper pictures	
Tape recorder	
Community:	
member of community	
different ethnic groups	
people of different financial status	
leader in industry	

ce Materials	Continued and Additional Suggested Learning Experiences
sunderstanding	
V. Cassil. Writing by	
y Waldow	
Wm. Strent.	
pictures	
ups Financial	

CONCEPT 9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area Language

Subject English

Problem Orientation Attit

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to identify 5 propaganda devices in ads of products which harm his environment.

Affective: Through writing an ad to influence the public not to buy certain products, the student will show that man, at times, changes his environment at the expense of future generations.

Skills to be Learned

Identify propaganda devices
Understand words & images of ad writing

SUGGESTED LEARNING EX

I. Student-Centered in class activity
  A. Classroom
    1. Students bring in newspapers to discuss the content & make-up. Discuss why ads are important to the economy of the paper & to the needs of the people.
    2. Read excerpts form The Hidden Persuaders & discuss the psychology & techniques of ad writing. Choose a few well-prepared ads. Discuss how the product is made or where it comes from; what good comes from the product & what bad results from it. Discuss the effect of words on the person reading the ad & the various propaganda devices.
    3. Have each student pretend he has a certain amount of money. ($5000) Given a list of priorities or variable items, he has to spend it all. Discus how the wants of the class wil change the environment.
    4. A student has a year to do anything he wishes. What (cont

ability to manage,

change his

Discipline Area Language Arts

Subject English

Problem Orientation Attitudes Grade 9

BJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Classroom

1. Students bring in newspapers to discuss the content & make-up. Discuss why ads are important to the economy of the paper & to the needs of the people.
2. Read excerpts form The Hidden Persuaders & discuss the psychology & techniques of ad writing. Choose a few well-prepared ads. Discuss how the product is made or where it comes from; what good comes from the product & what bad results from it. Discuss the effect of words on the person reading the ad & the various propaganda devices.
3. Have each student pretend he has a certain amount of money. ($5000) Given a list of priorities or variable items, he has to spend it all. Discuss how the wants of the class will change the environment.
4. A student has a year to do anything he wishes. What (cont.)

II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested Learn
Publications: The Hidden Persuaders, Vance Packard Newspapers Magazines	I. (cont.) will he do? How will it affect his 5. Through looking at various ads, the become aware of what visual appeal product. Have each student pick a pr through its manufacturing, is harmin He then writes an ad with proper pi cause the public not to buy the proc
Audio-Visual: Pictures TV commercials Using Community Resources, film from CESA 9	
Community: Local TV editor	

ials	Continued and Additional Suggested Learning Experiences
	I. (cont.) will he do? How will it affect his future life? 5. Through looking at various ads, the students become aware of what visual appeal does for the product. Have each student pick a product which, through its manufacturing, is harming the environment. He then writes an ad with proper pictures that might cause the public not to buy the product.
im	

ESEA Title III - 59-70-0135-1 Project I-C-E

C 10. Short-term economic gains may
O
N produce long-term environmental
C
E losses.
P
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Discipline Area La

Subject Sp

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Using an ecological topic, student will organize, present & criticize a debate showing how short-term gains could produce long-term losses. Affective: Students demonstrate an understanding of the complexities of the economic system by identifying short-term gains resulting in long-term losses in the oral discussion of the debates.	I. Student-Centered in class activity A. Classroom 1. The teacher will expla the proper way to resea use note cards, organiz an argument and the pro way of conducting a deb 2. Watch for debates on T Inquiry or something similar. 3. Have students select t a. Individual rights vs community rights b. Mass transportation individual cars c. Population limitatio population explosion d. Forests for industry forests for recreatio 4. Students research topi 4 minute presentation cases pro and con. 5. Students will get toge in groups according to & discuss the materials discovered through rese Each group, through poo of resources, will try improve each member's presentation. (cont.
Skills to be Learned Research Interview Organize Logically present & criticize a debate concerning an ecological issue	

onomic gains may

environmental Discipline Area Language Arts

Subject Speech - Debates

Problem Orientation Natural Resources Grade 9

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
n tudent ent & showing s could osses. s erstanding s of the identifying esulting in the oral debates. ed & te ological	I. Student-Centered in class activity A. Classroom 1. The teacher will explain the proper way to research, use note cards, organize an argument and the proper way of conducting a debate. 2. Watch for debates on TV - Inquiry or something similar. 3. Have students select topic: a. Individual rights vs. community rights b. Mass transportation vs. individual cars c. Population limitation vs. population explosion d. Forests for industry vs. forests for recreation 4. Students research topic for 4 minute presentation - cases pro and con. 5. Students will get together in groups according to topic & discuss the materials they discovered through research. Each group, through pooling of resources, will try to improve each member's presentation. (cont.)	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggested
Publications:	I. (cont.)
National Forensic League, Ripon College, Ripon, Wis.	6. Debate groups will present a sides, & rebuttals. Optional -
Speaking by Doing, National Textbook Co., Skokie, Ill.	7. Tape debate. Have group evalu the teacher evaluates them.
Population Bomb, Paul Ehrlich State Historical Society Madison, Wisconsin	
Discussion & Debate, National Textbook Co., Skokie, Ill.	
Audio-Visual:	
Community:	

Materials	Continued and Additional Suggested Learning Experiences
e, Wis. onal Ill. hrlich ty tional Ill.	I. (cont.) 6. Debate groups will present affirmative & negative sides, & rebuttals. Optional - questions from floor. 7. Tape debate. Have group evaluate themselves before the teacher evaluates them.

C O N C E P T

11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area Language

Subject English

Problem Orientation E. Alte

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EXPE	
Cognitive: The student will be able to identify environmental alterations and to discover solutions as seen in descriptive and critical writing. Affective: The student will illustrate that repeated acts significantly alter the environment by compiling a list of environmentally harmful effects.	I. Student-Centered in class activity A. Read a short story or novel and discuss how repeated acts altered the surroundings. B. Present slides or pictures of community run-down vs. prosperous sections. Discuss what people live in each section and why. Account for the vast difference in the surroundings. Discuss the acts that caused both environmental situations. Which is better? How can change be instituted to better the poor situation? C. Make up a slide show, This Land is Your Land, showing how man has, through his acts, altered his environment.	II. Out Commu A. Vi or stu in If cha sev mar B. Vi tow des abo the loc rep tha sit
Skills to be Learned Interpretation of prose writing Logical problem solving Writing descriptively		

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rations over time.

Discipline Area Language Arts

Subject English

Problem Orientation E. Alterations Grade 9

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  - A. Read a short story or novel and discuss how repeated acts altered the surroundings.
  - B. Present slides or pictures of community run-down vs. prosperous sections. Discuss what people live in each section and why. Account for the vast difference in the surroundings. Discuss the acts that caused both environmental situations. Which is better? How can change be instituted to better the poor situation?
  - C. Make up a slide show, This Land is Your Land, showing how man has, through his acts, altered his environment.

II. Outside Resource and Community Activities
  - A. Visit a nearby river or lake. Question students whether this is in its original state? If not, what caused the change--one act or several acts? Why did man allow this change?
  - B. Visit a poor section in town. Then compose a descriptive paragraph about it. Describe how the place should ideally look. Come up with repeated individual acts that might remedy the situation.

Resource and Reference Materials	Continued and Additional Sugge
Publications: A Tree Grows in Brooklyn Betty Smith The Outsiders Audio-Visual: Slides (teacher prepared) Magazine pictures Student prepared slide show Community: Field trip to local residential section	

ence Materials	Continued and Additional Suggested Learning Experiences
oklyn	
pared)	
ide show	
on	

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Langu

Subject Creat

Problem Orientation V

R

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN	
Cognitive: The student will be able to describe how man's manipulation of environment might violate the rights of another as demonstrated by the writing of a short story. Affective: Given a short story, the student will pick out two examples of how man's use of the environment eventually infringes on the rights of others.	I. Student-Centered in class activity Discuss: Why certain factories are located along rivers, what good is accomplished, what problems they create for future generations. Why certain wilderness areas are being preserved How man's greediness for natural resources has contributed to erosion, pollution, and extinction of wild life. Read a good short story, Discuss the structure, elements and language. Sketch characters and plot (violation of rights). Write story using given plot and characters, putting own interpretation to it.	II
Skills to be Learned: Be able to evaluate a short story Be able to write effectively showing man's manipulation of his environment		

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crouch upon or violate

l right of others.

Discipline Area Language Arts

Subject Creative Writing--Short Stories

Problem Orientation Violation of Rights Grade 9

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
student describe ulation might hts of nstrated of a short n a short ent will amples of f the ntually e rights arned: luate a te howing ation nment	I. Student-Centered in class activity Discuss: Why certain factories are located along rivers, what good is accomplished, what problems they create for future generations. Why certain wilderness areas are being preserved How man's greediness for natural resources has contributed to erosion, pollution, and extinction of wild life. Read a good short story, Discuss the structure, elements and language. Sketch characters and plot (violation of rights). Write story using given plot and characters, putting own interpretation to it.	II. Outside Resource and Community Activities

Resource and Reference Materials	Continued and Additional Suggest
Publications: Professionally written stories based on this theme of violation Readings, both informative and poetic, illustrating this theme all as stimuli for ideas and the writing process	
Audio-Visual: Film A Thousand Clowns	
Community: Local speakers, lawyers, farmers, judges who can talk anonymously of "violation" cases and stories	

terials	Continued and Additional Suggested Learning Experiences
ries olation and theme and	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as nee

In commenting on each episode used in your class, you may w format. Please feel free to adapt it and add more pages. Let u comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

each episode used in your class, you may wish to duplicate this suggested free to adapt it and add more pages. Let us know all your critiques and and positive.

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stions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONME

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A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 10

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
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Robert Kel
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E INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 10

itle III E.S.E.A.
in CESA's 3-8-9
nsin 54301

Robert Warpinski, Director
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PREFACE

If you wish to excite students about their environment, help is
of over a hundred teachers, year long meetings, a summer worksho
ecologists, this guide means realistic, developed aid for you.
which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are de
ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your
to adapt, adopt, or use. By design, the range of suggestions
mentation and usage are even wider. Many episodes are self-c
others can be changed in part or developed more keenly over a
possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning
plan. The reasons are simple. No guide has all the answers
unless viewed in the context of your classroom situation. Th
give it a triple reading, check over the resources listed, ma
prime your students, and seek help. The Project personnel an
knowledgement page stand ready to aid your efforts. Feel fre
4. The Project Resource Materials Center serves all CESA 3, 8, a
private. We will send available materials pre-paid. Call fo
visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school libra
Center materials. Please offer suggestions, comments, or advi
service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratc
suggestions on the episode pages or use the attached evaluati
lected in late May next year and will be used in our revision
reactions and suggestions--negative and positive. Please not
in the episodes may refer to specific, local community resour
cases, individual school districts and teachers will have to
stitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survi
Creation's beauty and complexity--often noted as the work of
and human energy to save. A year's work by a hundred of your
gesture. Without you, their work will crumble, and so might w
let us live to think, feel, and act in harmony with our world.

---

1. Cognitive means a measurable mental skill, ability, or proc
2. Affective refers to student attitudes, values, and feelings
3. APWI means Acceptable Performance Will Include (labels a co
4. EPA - Environmental Problem Area

PREFACE

ite students about their environment, help is ready. Thanks to the efforts
achers, year long meetings, a summer workshop, university consultants and
de means realistic, developed aid for you. Please note the following ideas
teachers in writing and editing this guide.
plementary in nature and the episodes are designed--at appropriate instan-
existing, logical course content.
ode offers suggestions. Since you know your students best, you decide what
or use. By design, the range of suggestions is wide; your chances for exper-
ge are even wider. Many episodes are self-contained, others open-ended, still
nged in part or developed more keenly over a few weeks. These built-in
ow you to explore.
you try the episodes and suggested learning experiences but please pre-
s are simple. No guide has all the answers and no curriculum will work
the context of your classroom situation. Thus, before trying an episode,
reading, check over the resources listed, make mental and actual notes,
ts, and seek help. The Project personnel and teachers listed on the ack-
e stand ready to aid your efforts. Feel free to ask their help in pre-planning.
rce Materials Center serves all CESA 3, 8, and 9 area schools--public and
send available materials pre-paid. Call for any help, materials, or to
-4338.
roject ICE Bibliography in your school library for available Resource
Please offer suggestions, comments, or advice--at any time--so that this
Let's help each other.
with the guide by reacting to it with scratch ideas, notes, and extended
e episode pages or use the attached evaluation format, which will be col-
y next year and will be used in our revisions. We sincerely want your
gestions--negative and positive. Please note that some resources listed
ay refer to specific, local community resources or conditions. In such
school districts and teachers will have to adopt local or available sub-
of terms pertinent to the episodes is below.
her experts have simplified the issue--survival--yours, mine, our students,
and complexity--often noted as the work of a genius--will take our genius
to save. A year's work by a hundred of your fellow teachers is a saving
you, their work will crumble, and so might we all--literally. Instead,
ink, feel, and act in harmony with our world.

- - - - - - - -

Editorial Board

s a measurable mental skill, ability, or process based on factual data.
rs to student attitudes, values, and feelings.
eptable Performance Will Include (labels a cognitive or mental performance.)
ental Problem Area

ACKNOWLEDGEMENTS: The following teachers and consultants participate
of the Supplementary Environmental Education Guide

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Benjamin Roloff, Howard-Suamico
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David Bartz, Sturgeon Bay
John Hussey, Green Bay
Sister Barbara, St. Bernard

Robert Cook, UWGB
Dennis Bryan, UWGB

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1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area L

Subject E

Problem Orientation E

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: Using narrative writing as the media, the student will not only be able to write a well-constructed and effective story, but also be able to convincingly present it orally to the class. *Affective*: Upon finishing this unit, the student should have a better understanding of part of the world around him; a world that is often taken for granted. He should be reminded of and understand the importance of the sun in his life.	I. Student-Centered in class activity 1. Individual work: assign a narrative paper dealing with the theme "The Week The Sun Didn't Shine," stipulating that it can be fiction or non-fiction. 2. Have the student read his paper to the class using any sound effects or props that would make his presentation more realistic. 3. Inform the students that they may enlist the help of other students to dramatize his story if he wishes. 4. Recording narratives to resemble a radio program
Skills to be Learned Narrative writing Oral reading skills Production skills using the tape recorder Interpretation skills based on dramatizations	

II

rom the sun, the basic source
gy, is converted through
synthesis into a form all
gs can use for life processes.

Discipline Area Language Arts
Subject English
Problem Orientation Energy Use Grade 10

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
sing narrative e media, the not only be a well-const- fective story, ble to con- sent it orally pon finishing e student better under- art of the him; a world taken for hould be nd understand e of the sun Learned iting skills kills using rder on skills atizations	I. Student-Centered in class activity 1. Individual work: assign a narrative paper dealing with the theme "The Week The Sun Didn't Shine," stipulating that it can be fiction or non-fiction. 2. Have the student read his paper to the class using any sound effects or props that would make his presentation more realistic. 3. Inform the students that they may enlist the help of other students to dramatize his story if he wishes. 4. Recording narratives to resemble a radio program	II. Outside Resource and Community Activities 1. Field trip as an entire group or in small groups to observe city and country life and the effect the sun has on it.

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Basic grammar & composition text - section on narrative writing. Newspaper & magazine articles Books dealing with darkness and the sun - Fact or fiction. To Build a Fire - Rondon. The Grapes of Wrath - Steinbeck. The Sea Around Us - Carson Three Days to See - Keller Audio-Visual: Tape recorder Sound effects & props to coincide with story. Community: Evaluation of the farm community and how the sun affects it. The urban area and how the sun affects it.	

rials	Continued and Additional Suggested Learning Experiences
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nity	
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CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area Language A
Subject English
Problem Orientation Predators

BEHAVIORAL OBJECTIVES

Cognitive: After reading, "Thinking Like a Mountain," the student will be able to demonstrate in writing the cause and effect relationship which occurs as a result of man's attempting to exterminate predators.

Affective: The student will come to realize that man's manipulation of one element in the ecosystem will result in various effects among other elements of the system as shown through the active part the student plays in a panel discussion.

Skills to be Learned

- Reading for meaning
- Identifying cause and effect relationships
- Expository writing
- Relevant analysis

SUGGESTED LEARNING EXPERIE

I. Student-Centered in class activity

1. Discuss Aldo Leopold's "Thinking Like a Mountain" from Land Country Almanac.
   a. What was the author's attitude toward the wolf in his youth?
   b. Why did he change this initial attitude?
   c. What effect does the extermination of the wolf have?
   d. What is the predator's purpose?
      1. To insure survival of the fittest
      2. To keep populations in check.
2. Write a paragraph on one of the following:
   a. Killing the fox will insure the pheasant.
   b. Hawks & eagles are a nuisance to the chicken farmer, therefore, their destruction can be condoned.

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it called Subject English
Problem Orientation Predators Grade 10

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Discuss Aldo Leopold's "Thinking Like a Mountain" from Land Country Almanac.
   - a. What was the author's attitude toward the wolf in his youth?
   - b. Why did he change this initial attitude?
   - c. What effect does the extermination of the wolf have?
   - d. What is the predator's purpose?
     1. To insure survival of the fittest
     2. To keep populations in check.
2. Write a paragraph on one of the following:
   - a. Killing the fox will insure the pheasant.
   - b. Hawks & eagles are a nuisance to the chicken farmer, therefore, their destruction can be condoned.

II. Outside Resource and Community Activities

1. In library, locate books & magazines concerned with related problems.
2. Identify similar negative attitudes that exist within your community.
3. Conduct a survey on ideas such as 2a & b, and others, in the community. Record the responses and reasons for such feelings. Use this information and any written material to conduct a panel discussion on the topic, airing all responses possible problems or solutions that would be affective in your community.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Sand County Almanac and Sketches Here and There by Aldo Leopold, Oxford University Press paperback, 1969 reprint, "Thinking Like a Mountain" p. 129. Never Cry Wolf by Mowatt. Born Free Excerpts from stories dealing with man, nature, and animals.	
Audio-Visual:	
Community:	

aterials	Continued and Additional Suggested Learning Experiences
ketches eopold, paperback, Like a	
ling with .	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT 3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each, environment has a carrying capacity.

Discipline Area Language Ar

Subject English

Problem Orientation Carryin Capacit

BEHAVIORAL OBJECTIVES

Cognitive: The students will use their artistic & imaginative skills to organize & produce a program made of projects which require the research, writing & speaking skills of the student.

Affective: Through the assignment, the student will evaluate his own feelings towards mankind & his environment, & interpret it for the audience by using one of the mentioned projects.

Skills to be Learned
- Artistic
- Speaking
- Reasoning
- Organizational
- Technical
- Library & reaearch

SUGGESTED LEARNING EXPER

I. Student-Centered in class activity
  A. Class
    1. Organize a thematic presentation to be presented to the class, demonstrating the concept, "How mankind is overloading or exceeding the land's carrying capacity".
    2. The class will conduct a program to be put on to another English class with each student or group of students working on a project.
       Example of projects:
       a. A collage representative of the concept
       b. Find a contemporary song or songs to illustrate the problem, use the record with the presentation
       c. Choose prose or poetry to read or memorize
       d. Create your own song or poem to present
       e. Find illustrative slides & correlate with appropriate music
       f. Present a satirical skit

(cont.)

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Discipline Area Language Arts
Subject English
Problem Orientation Carrying Capacity
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class
    1. Organize a thematic presentation to be presented to the class, demonstrating the concept, "How mankind is overloading or exceeding the land's carrying capacity".
    2. The class will conduct a program to be put on to another English class with each student or group of students working on a project.
    Example of projects:
      a. A collage representative of the concept
      b. Find a contemporary song or songs to illustrate the problem, use the record with the presentation
      c. Choose prose or poetry to read or memorize
      d. Create your own song or poem to present
      e. Find illustrative slides & correlate with appropriate music
      f. Present a satirical skit.

(cont.)

II. Outside Resource and Community Activities
  A. Outside work
    1. Invite the community to view the program or present it to some local organization.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Magazines: Life Look National Geographic National Wildlife Art **Audio-Visual:** Record player Tape recorder **Community:** Props for skit	I. (cont.) Examples of how man's misusing a. Pollution of any type b. Population problem c. Overcrowding streets & highw 1. Construction of buildings 2. Crowded residential areas

Materials	Continued and Additional Suggested Experiences
	I. (cont.) Examples of how man's misusing the land: a. Pollution of any type b. Population problem c. Overcrowding streets & highways 1. Construction of buildings (business) 2. Crowded residential areas

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4. An adequate supply of pure water is essential for life.

Discipline Area Lan

Subject Eng

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: After observation of wildlife in & about a fresh water source, the student will demonstrate by writing a creative poem, his understanding of the dependence of life upon an adequate supply of pure water. Affective: Student will become aware of poetry as a literary art form by actually writing it themselves, developing an attitude or feelings relative to an observed situation.	I. Student-Centered in class activity A. Class activity 1. The class will read poetry selections dealing with nature & the importance of water plays. 2. Each student will compo a poem about some animal or bird that was seen utilizing the water source. The poem should incorporate the "concept While recording in an interesting manner the actions of the bird or animal in & around the water source.
Skills to be Learned Skills of observation Creative writing Imagery Research skills	

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gu sential for life.

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Discipline Area Language Arts

Subject English

Problem Orientation Pure Water Grade 10

NC AL OBJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class activity
    1. The class will read poetry selections dealing with nature & the importance of water plays.
    2. Each student will compose a poem about some animal or bird that was seen utilizing the water source. The poem should incorporate the "concept". While recording in an interesting manner the actions of the bird or animal in & around the water source.

II. Outside Resource and Community Activities
  A. Community & surrounding area
    1. In small groups visit a fresh water source (relatively polluted) & observe the wildlife that comes to the water source for sustenance.
    2. Compile a list of those species that are observed around the water source.
  B. Library
    1. Research the growth of cities around the Great Lakes or other fresh water sources.

Resource and Reference Materials	Continued and Additional Suggeste
Publications: The Sun Around Us, R. Coran Six Centuries of Great Poetry, Dell paperbacks Any literary anthology Audio-Visual: Library resource material Related poems, etc. Stuffed models of wildlife in class or in museum Community: Wildlife Sanctuary	

ce Materials	Continued and Additional Suggested Learning Experiences
Coran t Poetry, y rial dlife in	

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5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Are

Subject

Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED
Cognitive: The student will be able to write a descriptive essay about air pollution based on what he has seen, as well as be able to discuss the problem as found in his own community. Affective: Through observing the air pollution problem in in his own town and writing about it, the student will show an awareness of the problem of air pollution.	I. Student-Centered in activity A. To begin class, ra flip through 10-12 from a film strip, the student just en time to jot down , word or two, his fi impressions of each B. Have the student, these impressions, a descriptive essay what he has just se the importance it p his life.

Skills to be Learned
- Descriptive writing skills
- Discussion skills
- Quick thinking

te supply of clean air is
cause most organisms Discipline Area Language Arts
ygen, through respiration, Subject English
he energy in their food. Problem Orientation Air Pollution Grade 10

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
student will ite a descrip- out air pollu- what he has as be able to roblem as found mmunity. rough observing tion problem in wn and writing student will ness of the r pollution.	I. Student-Centered in class activity A. To begin class, rapidly flip through 10-12 slides from a film strip, giving the student just enough time to jot down , in a word or two, his first impressions of each. B. Have the student, using these impressions, write a descriptive essay on what he has just seen and the importance it plays in his life.	II. Outside Resource and Community Activities A. The students will then go out into their community looking for examples of air pollution. B. The teacher will then rerun the film strip and the class will discuss it and the examples that they have found, stressing the idea of what can be done to overcome the problem.
Learned writing skills skills ing		

Resource and Reference Materials	Continued and Additional
Publications: Audio-Visual: Environmental Pollution - Our World in Crisis, Ward's Natural Science Establishment, filmstrip on air pollution. Community: city engineer, city clerk township office Dept. of Natural Resources, Green Bay observe examples of air pollution in community talk to qualified people about what can be done to eliminate air pollution.	

l's Materials	Continued and Additional Suggested Learning Experiences
- Our World al Science p on air k es, Green pollution about what e air	

CONCEPT

6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline A
Subject
Problem Orie

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to compare and contrast the life styles of actual and fictional characters illustrating the importance of natural resources by writing a paper, "How the main character's life style has been molded by the area in which he lives."

Affective: Through observing and discussing the natural resources in the student's immediate area, they will become aware of how their lives are affected by this factor.

Skills to be Learned

- Reading skills
- Comprehensive writing skills
- Discussion & debating skills
- Research & Interviewing skills

SUGGESTE

I. Student-Centered in
activity
1. Have the class brea
into groups and read
novel The Old Man and
Sea or The Pearl. Sho
movie, if available,
the novel.
2. Have each individua
group prepare a writt
paper dealing with th
"How the main charact
life style has been m
by the area (natural
sources) in which he
  a. his life style
  b. mental attitude t
  life & duty to one'
3. Divide class into g
and carry on discussi
about student's life
and how the geographi
location has influenc
5. A debate may be org
ized around the life
of a rural family vs.
life style of an urba
family.
6. Show slides or pict
dealing with the natu
resources in your are
  a. Some should be ar
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l resources are not equally
ed over the earth or over
greatly affect the geographic
s and quality of life.

Discipline Area Language Arts
Subject English
Problem Orientation Resource Usage Grade 10

ORAL OBJECTIVES

The student
e to compare
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ctual and fic-
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ources by writing
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life style has
by the area in
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Through obser-
scussing the
ources in the
mmediate area,
ecome aware of
ives are affec-
factor.

e Learned
ills
ive writing skills
& debating skills
Interviewing skills

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Have the class break up into groups and read the novel The Old Man and The Sea or The Pearl. Show movie, if available, of the novel.
2. Have each individual or group prepare a written paper dealing with the idea, "How the main character's life style has been molded by the area (natural resources) in which he lives.
   - a. his life style
   - b. mental attitude towards life & duty to one's self.
3. Divide class into groups and carry on discussion about student's life style and how the geographical location has influenced it.
5. A debate may be organized around the life style of a rural family vs. the life style of an urban family.
6. Show slides or pictures dealing with the natural resources in your area.
   - a. Some should be areas

(Cont.)

II. Outside Resource and Community Activities

1. For discussion purposes, have the class research their surrounding area to find out how the natural resources from this region have influenced their lives.

Resource and Reference Materials

Publications:

Steinbeck - Flight
The Pearl

Hemingway - The Old Man and the Sea

30 Basic Speech Experiences, Clark Publishing.

Discussion & Debate, National Textbook Co., Skokie, Ill.

Audio-Visual:

Show movie or display pictures of the novels chosen to read. slides displaying what are considered natural resources.

Community:

Gather information from town & country residents about their life styles

Continued and Addition

I. (Cont.)
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somewhat what m
1. Explain the
resources & ho
b. Show slides c
and discuss ho
different thar

ence Materials	Continued and Additional Suggested Learning Experiences
rl Man and the Sea periences, Clark e, National Text- Ill.	I. (Cont.) somewhat untouched by man and others should show somewhat what man has done. 1. Explain the importance of changing the natural resources & how it has altered our lives. b. Show slides of resources not found in your area and discuss how these have developed life styles different than the one you live.
lay pictures sen to read. hat are l resources.	
from town s about	

C 8. Cultural, economic, social, and
O
N political factors determine status
C
E of man's values and attitudes
P
T toward his environment.

Discipline Area

Subject

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BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: The student will be able to formulate some ideas relative to the above concept and put these thoughts in organized well-structured compositions. Affective: The student will demonstrate awareness of the factors in society that affect his values & attitudes by constructing a paper dealing with this topic.	I. Student-Centered in class activity 1. Have students write down separate thoughts, skipping a space between each, about the aspects of the concept that affect man's values & attitudes in either city living or country living. 2. Go back over these & plac them on some order as to ho you would logically want to talk about them. 3. Write first statement on sheet of paper. Have studen develop. 4. After they have develope the first topic as far as they can tell them to glanc at the 2nd statement on the other sheet & to think of a good statement to get them from this first paragraph into the next one to keep the idea flowing smoothly. 5. Repeat with remaining statements. 6. Use overhead projector to show papers to class, concealing names. Students will comment & make corrections.
Skills to be Learned Thought interpretation Topic sentence development Unifying sentences into a paragraph into overall theme Thought development Sentence structure Punctuation skills	

conomic, social, and
ors determine status — Discipline Area: Language Arts
s and attitudes — Subject: English Composition
ironment. — Problem Orientation: Attitudes — Grade: 10

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
student formulate ive to the d put these nized well- sitions. student will eness of the ty that affect itudes by con- r dealing	I. Student-Centered in class activity 1. Have students write down separate thoughts, skipping a space between each, about the aspects of the concept that affect man's values & attitudes in either city living or country living. 2. Go back over these & place them on some order as to how you would logically want to talk about them. 3. Write first statement on sheet of paper. Have students develop. 4. After they have developed the first topic as far as they can tell them to glance at the 2nd statement on the other sheet & to think of a good statement to get them from this first paragraph into the next one to keep the idea flowing smoothly. 5. Repeat with remaining statements. 6. Use overhead projector to show papers to class, concealing names. Students will comment & make corrections.	II. Outside Resource and Community Activities
rned tation development ces into a verall theme ment ure lls		

Resource and Reference Materials	Continued and Additiona
Publications: local news media textbooks, pamphlets, magazines Audio-Visual: overhead projector opaque projector Community: interview local citizens Dept. of Natural Resources (for materials) Council of Northeast Wisc. Planning Commission Wisc. Ecological Commission	

a	nce Materials	Continued and Additional Suggested Learning Experiences
	, magazines	
	ens urces (for Wisc. Planning ssion	

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area Lang

Subject Spee

Problem Orientation Popu Dens

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX	
Cognitive: After researching the above problem, students will take part in a problem-solving group discussion as a means of better understanding the various influences that transportation, economic conditions, population growth, and increased leisure time have on land usage and centers of population density. Affective: That through a group discussion problem-solving effort, students will become more aware of the various ways that factors such as transportation, economic conditions, population growth, and increased leisure time can have a great influence on changes in land use and population density centers.	I. Student-Centered in class activity 1. Divide the class into 3 or 4 groups & present each with above concept. 2. Have students meet in groups and organize themselves by selecting a chm. and deciding how they will organize their problem-solving effort. 3. Each student then researches the problem or assigned aspects of the problem that the group has decided to break the topic into. 4. Group should meet together periodically to pool information or make progress reports on their individual research efforts. 5. Have each group present group discussion of their research in front of class. Should last about 10 min. Allow for class questions & comments.	II. C 1
Skills to be Learned Research skills Organization skills Extemp. speaking skills Group interaction skills Group leadership skills Informative speaking Effective notetaking		

nomic, social, and
s determine status
and attitudes
ronment.

Discipline Area Language Arts
Subject Speech
Problem Orientation Population Density Grade 10

SUGGESTED LEARNING EXPERIENCES

JECTIVES	I. Student-Centered in class activity	II. Outside Resource and Community Activities
researching , students a problem- cussion as understan- influences on, economic ation growth, sure time e and cen- n density. through a problem- students will e of the vari- ctors such as economic con- ion growth, isure time influence on use and popu- enters.	1. Divide the class into 3 or 4 groups & present each with above concept. 2. Have students meet in groups and organize themselves by selecting a chm. and deciding how they will organize their problem-solving effort. 3. Each student then researches the problem or assigned aspects of the problem that the group has decided to break the topic into. 4. Group should meet together periodically to pool information or make progress reports on their individual research efforts. 5. Have each group present group discussion of their research in front of class. Should last about 10 min. Allow for class questions & comments.	1. Bring in outside speakers to talk about the topics each group will be discussing.
rned s kills g skills ion skills ip skills eaking taking		

Resource and Reference Materials	Continued and Additional
Publications: books, magazines, periodicals, and other library references	
Audio-Visual:	
Community: local news media (TV, radio) Council of Gov'ts Northeast Wisconsin Planning Commission Wisc. Ecological Commission DNR State Dept. of Conservation Dept. of the Interior surveys of persons who have some interest in the various factors mentioned which have an influence on changes in land use and centers of population density.	

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Discipline Area Langua
Subject Speech
Problem Orientation Lan

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING E
Cognitive: After presenting a simulated public hearing, incorporating a selected research problem from the orally presented news clippings of problems by each student in class, the students will use role playing as a media to demonstrate his understanding of man's individual environmental needs & wants. The students will follow-up these assignments by presenting an informative speech relating individual change or reinforcement of attitudes resulting from the study. Affective: Through role-playing & preparing a speech dealing with man's conflicts with his environment, the students are made increasingly aware of conflicts of interest involving man's needs relative to land use. Skills to be Learned Role playing Reading aloud Research (cont.)	I. Student-Centered in class activity A. Class 1. Role-playing - Simulate a public hearing using as the basis a selected common interest problem from the local news medic. One involving a wide variety of land use possibilities. e.g. The damming of a local river which could have any of the following potential effect a. Flooding of wildlife habitat b. Removal of landmark trees c. Electrical power availabiltiy d. Creation of swimming, fishing & campsite areas e. Creation of watershed f. Aesthetic value of land site g. Water rights above & below dam. 2. Speech to inform reflecti personal change or reinfor ment of attitudes relative situation regarding land u

e ability to manage,
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Discipline Area Language Arts
Subject Speech
Problem Orientation Land Use Grade 10

OBJECTIVES

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Class
    1. Role-playing - Simulate a public hearing using as the basis a selected common interest problem from the local news medic. One involving a wide variety of land use possibilities. e.g. The damming of a local river which could have any of the following potential effects:
      a. Flooding of wildlife habitat
      b. Removal of landmark trees
      c. Electrical power availabiltiy
      d. Creation of swimming, fishing & campsite areas
      e. Creation of watershed
      f. Aesthetic value of landsite
      g. Water rights above & below dam.
    2. Speech to inform reflecting personal change or reinforcement of attitudes relative to situation regarding land use.

II. Outside Resource and Community Activities
  A. Community
    1. Have students research, select bring to class & read aloud, a news description of an environmental conflict of interest.
    2. Students interview members of the community to gain insight into their views relative to environmental problems being dealt with, & as a means of substantiating the students role-playing experience.
  B. Library
    1. Research books, magazines, newspapers for related problems.

Resource and Reference Materials	Continued and Additional Suggested L
Publications:	Skills to be Learned (cont.) Informative speaking Organization Outlining Extemp speaking Interview Interpretive Business letter writing
Audio-Visual: Books and other library reference sources	
Community: Local news media TV Newspaper Radio Townspeople DNR State Dept of Conservation Dept. of the Interior Council of Governments Northeast Wis. Planning Commission Wisconsin Ecological Commission	

e Materials	Continued and Additional Suggested Learning Experiences
	Skills to be Learned (cont.) Informative speaking Organization Outlining Extemp speaking Interview Interpretive Business letter writing
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Northeast ion ommission	

CONCEPT 10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Languag

Subject English

Problem Orientation Land

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING EX
Cognitive: The student will be improving his ability to organize & conduct a discussion as well as express himself rationally by writing about man's attitudes towards his environment. Affective: The student will show his awareness of how decisions concerning economic gains may produce lasting environmental losses by finding examples of these losses & using them to prepare an essay coming the "before and after" effects. Skills to be Learned Discussion Writing Observation Analyzing	I. Student-Centered in class activity A. Classroom 1. Discuss in class the question, "What is it about mankind that makes him more concerned about short-term gains than long-term losses?" 2. Have each student find 3-5 examples where man's desire for wealth has produced environmental losses which will not be easily repaired. Examples - Junk yards, housing developments, factories, highways, gravel pits, etc. 3. Using these examples, have the students discuss in a formal essay the differences between their' area today & the area before all these changes were made. How did these gains result in losses? 4. Set up a discussion with half the class supporting modernization & half against. 5. Tape the discussion & replay it for the class and (cont.)

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Discipline Area Language Arts

Subject English

Problem Orientation Land Use Grade 10

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. Discuss in class the question, "What is it about mankind that makes him more concerned about short-term gains than long-term losses?"
    2. Have each student find 3-5 examples where man's desire for wealth has produced environmental losses which will not be easily repaired. Examples - Junk yards, housing developments, factories, highways, gravel pits, etc.
    3. Using these examples, have the students discuss in a formal essay the differences between their' area today & the area before all these changes were made. How did these gains result in losses?
    4. Set up a discussion with half the class supporting modernization & half against.
    5. Tape the discussion & replay it for the class and (cont.)

II. Outside Resource and Community Activities
  A. Bring in outside speakers defending one position or the other: modernization vs. protecting conservation.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Sand County Almanac Land Ethic by Leopold	I. (cont.) ask them to look for fallacies i
Audio-Visual: Tape recorder	
Community: Interview townspeople Observe changes in community Local conservation organizations Outside speakers	

Materials	Continued and Additional Suggested Learning Experiences
	I. (cont.) ask them to look for fallacies in reasoning.
nity izations	

C 11. Individual acts, duplicated
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N or compounded, produce significant
C
E environmental alterations over time.
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Discipline Area Language Ar

Subject English

Problem Orientation Alterati

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to carry on a class discussion, use this information to create a well-structured short story, and deliver this to the class as an interpretive reading or production, showing how man affects his environment.

Affective: By evaluating man's life style and by writing his own example in the form of a short story, the student will discover that individual acts, made by either the individual or mankind as a whole, when compounded can cause important environmental changes.

Skills to be Learned

Discussion skills
Writing Skills
Creativity
Evaluation Skills
Speaking Skills

SUGGESTED LEARNING EXPER

I. Student-Centered in class Activity

A. Assign any short story dealing with nature

B. Have the class decide in what ways nature has been, or could be altered by individual acts, duplicated or compounded by either man or elements of nature.

C. Using the blackboard, have the students create a list of acts which, if duplicated, would produce significant environmental alterations over time.

Examples:

1. creation of luxuries
2. use of automobiles
3. population explosion
4. industry
5. killing of animal life
6. misuse of land for farming and grazing purposes

D. Turn the discussion towards the students' ideas of what makes a good short story.

E. Discuss the important elements of a short story.

(cont.)

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Problem Orientation Alteration Grade 10

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class Activity

A. Assign any short story dealing with nature

B. Have the class decide in what ways nature has been, or could be altered by individual acts, duplicated or compounded by either man or elements of nature.

C. Using the blackboard, have the students create a list of acts which, if duplicated, would produce significant environmental alterations over time.

Examples:

1. creation of luxuries
2. use of automobiles
3. population explosion
4. industry
5. killing of animal life
6. misuse of land for farming and grazing purposes

D. Turn the discussion towards the students' ideas of what makes a good short story.

E. Discuss the important elements of a short story.

(cont.)

II. Outside Resource and Community Activities

A. Observe some of their ideas in their own community.

Resource and Reference Materials	Continued and Additional S
Publications: Anthology or book of short stories to be used in the classroom How to Write Creatively J.N. Hook University of Illinois Audio-Visual slides and projector still-life pictures Community: Collect their own pictures or props for productions	I. Student-Centered in c F. Have the students c centered on one of t G. Working as an indiv necessary, have the story for the class. H. Have each student i on a critique form m criteria dealing wit story, and how well main idea the studen

Materials	Continued and Additional Suggested Learning Experiences
	I. Student-Centered in class activity (cont.)
ort stories room	F. Have the students create their own short story centered on one of the ideas from their list.
	G. Working as an individual, or recruiting help if necessary, have the student read or produce his story for the class.
s	H. Have each student in the class evaluate one story on a critique form made up by the teacher covering criteria dealing with the elements of a short story, and how well the story is centered on the main idea the student chose from the list.
ures or props	

CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Langua

Subject Englis

Problem Orientation Nat

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The student will be viewing a movie and commercials and will objectively discuss and criticize the effect the problem has on mankind, as well as create and present to the class, a better grade of commercial that protects our natural resources. Affective: The student will show an understanding of the importance of protecting our natural resources from his own misuse, or that of others, so as to guarantee its survival for future generations, by writing a commercial that advocates protecting our natural resources.	I. Student-Centered in class activity A. Show the film "Neighbors" and discuss the effect nature has on man. B. With the students, compile a list of things that have endured since man set foot on American soil, and that will endure beyond your own lifetime. C. Discuss our responsibilities in maintaining these things. 1. Do future generations have a right to these? 2. Does owning land give you the right to abuse it? D. Change the train of thought to the questions of commercialization and how natural resources are infringed upon by the individual consumer and "no-deposit, throw-away" society. E. Have the students bring in ads and, either alone or with a partner, have(cont.)	II
Skills to be Learned Observation Skills Discussion Skills Using Imagination Writing Skills Speaking and Role-playing		

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stewardship and should

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ual right of others.

Discipline Area Language Arts

Subject English

Problem Orientation Natural Resources Grade 10

AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
e student will movie and comm- ill objectively riticize the oblem has on ell as create o the class, a of commercial our natural e student will standing of e of protecting esources from e, or that of to guarantee for future by writing a at advocates r natural	I. Student-Centered in class activity A. Show the film "Neighbors" and discuss the effect nature has on man. B. With the students, compile a list of things that have endured since man set foot on American soil, and that will endure beyond your own lifetime. C. Discuss our responsibilities in maintaining these things. 1. Do future generations have a right to these? 2. Does owning land give you the right to abuse it? D. Change the train of thought to the questions of commercialization and how natural resources are infringed upon by the individual consumer and "no-deposit, throw-away" society. E. Have the students bring in ads and, either alone or with a partner, have(cont.)	II. Outside Resource and Community Activities
Learned Skills kills ation ls Role-playing		

Resource and Reference Materials	Continued and Additional
Publications: Magazine Advertising Age showing yearly choices of "best ads" Audio-Visual: Short film "Neighbors" order form An annotated checklist for 200 short films for writing classes. Illinois Association of Teachers of English. Nov. 1969. IATE Treasurer, 100 English Building Urbana, Illinois. Tape recorder Record player and records Video-tape projector Community: Collecting ads Using products or business in commercial for commercial	Student-Centered in class them look for restric commercials. F. Discuss word choice, formed by commercials G. Write a commercial t rights of others to e H. Present it orally to I. Tape record or video-

Materials	Continued and Additional Suggested Learning Experiences
of rder form for 200 classes. Teachers ls ess in ial	Student-Centered in class activity (cont.) them look for restrictions and composition of commercials. F. Discuss word choice, music, and mental picture formed by commercials. G. Write a commercial that does not infringe on the rights of others to enjoy natural resources. H. Present it orally to the class. I. Tape record or video-tape these.

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as need

In commenting on each episode used in your class, you may wi
format. Please feel free to adapt it and add more pages. Let us
comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

each episode used in your class, you may wish to duplicate this suggested free to adapt it and add more pages. Let us know all your critiques and and positive.

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mmunity Activities:

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stions & comments)

Project I - C - E   INSTRUCTION - CURRICULUM - ENVIRONMEN

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 11

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
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E INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 11

itle III E.S.E.A.
in CESA's 3-8-9
nsin 54301

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

PREFACE

If you wish to excite students about their environment, he
of over a hundred teachers, year long meetings, a summer wor
ecologists, this guide means realistic, developed aid for yo
which have directed teachers in writing and editing this gui

1. This guide is supplementary in nature and the episodes ar
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know
   to adapt, adopt, or use. By design, the range of suggesti
   mentation and usage are even wider. Many episodes are sel
   others can be changed in part or developed more keenly ov
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learn
   plan. The reasons are simple. No guide has all the answ
   unless viewed in the context of your classroom situation.
   give it a triple reading, check over the resources listed
   prime your students, and seek help. The Project personnel
   knowledgement page stand ready to aid your efforts. Feel
4. The Project Resource Materials Center serves all CESA 3,
   private. We will send available materials pre-paid. Cal
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school l
   Center materials. Please offer suggestions, comments, or
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with sc
   suggestions on the episode pages or use the attached eval
   lected in late May next year and will be used in our revi
   reactions and suggestions--negative and positive. Please
   in the episodes may refer to specific, local community re
   cases, individual school districts and teachers will have
   stitutes. A list of terms pertinent to the episodes is b
7. Ecologists and other experts have simplified the issue--s
   Creation's beauty and complexity--often noted as the work
   and human energy to save. A year's work by a hundred of
   gesture. Without you, their work will crumble, and so mi
   let us live to think, feel, and act in harmony with our w

---

1. Cognitive means a measurable mental skill, ability, or
2. Affective refers to student attitudes, values, and fee
3. APWI means Acceptable Performance Will Include (labels
4. EPA - Environmental Problem Area.

PREFACE

excite students about their environment, help is ready. Thanks to the efforts
d teachers, year long meetings, a summer workshop, university consultants and
guide means realistic, developed aid for you. Please note the following ideas
ted teachers in writing and editing this guide.
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into existing, logical course content.
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usage are even wider. Many episodes are self-contained, others open-ended, still
changed in part or developed more keenly over a few weeks. These built-in
allow you to explore.
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sons are simple. No guide has all the answers and no curriculum will work
in the context of your classroom situation. Thus, before trying an episode,
le reading, check over the resources listed, make mental and actual notes,
dents, and seek help. The Project personnel and teachers listed on the ack-
page stand ready to aid your efforts. Feel free to ask their help in pre-planning.
source Materials Center serves all CESA 3, 8, and 9 area schools--public and
ill send available materials pre-paid. Call for any help, materials, or to
432-4338.
e Project ICE Bibliography in your school library for available Resource
ls. Please offer suggestions, comments, or advice--at any time--so that this
ow. Let's help each other.
lf with the guide by reacting to it with scratch ideas, notes, and extended
the episode pages or use the attached evaluation format, which will be col-
May next year and will be used in our revisions. We sincerely want your
suggestions--negative and positive. Please note that some resources listed
s may refer to specific, local community resources or conditions. In such
ual school districts and teachers will have to adopt local or available sub-
ist of terms pertinent to the episodes is below.
other experts have simplified the issue--survival--yours, mine, our students,
ity and complexity--often noted as the work of a genius--will take our genius
y to save. A year's work by a hundred of your fellow teachers is a saving
ut you, their work will crumble, and so might we all--literally. Instead,
think, feel, and act in harmony with our world.

Editorial Board

ans a measurable mental skill, ability, or process based on factual data.
fers to student attitudes, values, and feelings.
cceptable Performance Will Include (labels a cognitive or mental performance.)
nmental Problem Area.

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ESEA Title III - 59-70-0135-1 Project I-C-E

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1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Area

Subject

Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Students will demonstrate skill in using concrete and connotative words through imaginative writing and a personal conference with the teacher about the sun and how it affects life. Affective: Through constructing of his own project, the student demonstrates his understanding of the sun and the effect it plays on man's life.	I. Student-Centered in class activity 1. Students will critically discuss writing containing passages with strong and vivid images of the sun and its effect on nature. 2. Student-made art work, pictures, slides, posters, etc. of different views of the sun. 3. Teacher will organize a thematic presentation of their work with musical accompaniment, with the students reacting to these through imaginative writing form of their choice, poetry, narrative, essay, single effect writing. 4. In second presentation, the student will alter his writing approach.
Skills to be Learned	
Word choice Imaginative expression points of view.	

sun, the basic source
converted through plant
a form all living
life processes.

Discipline Area Language Arts
Subject English
Problem Orientation Sun Energy Grade 11

TIVES	SUGGESTED LEARNING EXPERIENCES	
vill using tive ative al teacher it nstruct- t, the his sun and n man's on points	I. Student-Centered in class activity 1. Students will critically discuss writing containing passages with strong and vivid images of the sun and its effect on nature. 2. Student-made art work, pictures, slides, posters, etc. of different views of the sun. 3. Teacher will organize a thematic presentation of their work with musical accompaniment, with the students reacting to these through imaginative writing form of their choice, poetry, narrative, essay, single effect writing. 4. In second presentation, the student will alter his writing approach.	II. Outside Resource and Community Activities 1. Student will collect materials or slides of different aspects of the sun from the community. 2. Contact Art Department for pictures. 3. Contact Music Department for background music.

Resource and Reference Materials	Continued and Additional Suggested Le
Publications: Imaginative writing: Impressionistic poetry, excerpts from prose(novels, short stories), newspaper articles as selected by teacher and students. Audio-Visual: Pictures, slides, posters, art productions. Slide using shadows, light, sun Tape recorder Record player Community: Art teacher Music teacher Local library Slides from community	

Materials	Continued and Additional Suggested Learning Experiences
, excerpts rt stories), selected s.	
rs, art	
ght, sun	

CONCEPT 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area English
Subject Forms o
Problem Orientation Ec

BEHAVIORAL OBJECTIVES

Cognitive: Students should be able to demonstrate the distinctions between descriptive & expository writing & be able to give an example of each as a reaction to a visual stimulus.

Affective: Students should become more sophisticated in their reading. e.g. In their grammatical usage & its bearing on their writing. They should see writers' attitudes more clearly & thus be able to measure their own attitudes more efficiently against the writer's & against other students.

Skills to be Learned

Defining 2 forms of writing, expository & descriptive
Determine more effective approach in a given situation

SUGGESTED LEARNING

I. Student-Centered in class activity
  A. Class
    1. Have students view similar full page pictures from some commercial magazines. Suggested examples might be comparisons.
      a. Ants working in their communities as compared to men pictured in the busy city.
      b. Pictures of rural or city life showing skills that are almost non-existent, compared to pictures of animals faced with extinction or that are extinct.
    2. Conceal these pictures.
    3. Have the student note subtle similarities & differences in a one or two sentence form.
    4. Select 10 or 12 of these sentences written to be put on the board.
    5. From the selected (cont.)

ESEA Title III - 59-70-0135-1 Project I-C-E

g organisms interact among

nd their environment, Discipline Area English

ntricate unit called an Subject Forms of Writing

Problem Orientation Ecosystem Grade 11

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
udents should . onstrate the etween expository ble to give each as a visual udents should phisticated ng. e.g. In cal usage & their writing. e writers' clearly & thus sure their own efficiently iter's & students. earned rms of writing, descriptive e effective a given	I. Student-Centered in class activity A. Class 1. Have students view similar full page pictures from some commercial magazines. Suggested examples might be comparisons. a. Ants working in their communities as compared to men pictured in the busy city. b. Pictures of rural or city life showing skills that are almost non-existent, compared to pictures of animals faced with extinction or that are extinct. 2. Conceal these pictures. 3. Have the student note subtle similarities & differences in a one or two sentence form. 4. Select 10 or 12 of these sentences written to be put on the board. 5. From the selected (cont.)	II. Outside Resource and Community Activities A. Library 1. Locate examples of expository & descriptive writing associated with concept. 2. Discuss which type of writing is most appropriate for what is being said.

Resource and Reference Materials	Continued and Additional
Publications: Texts: Warriner;s Handbook The English Language II, Harcourt Brace & World Any language text can be used to acquire basic materials Magazines: Look Life National Geographic Audio-Visual: Crowd pictures City life Restful rurul life Community:	I. (cont.) sentences, make dist or expository senten concept. 6. Have student organi classroom demonstrat & descriptive writin depicting ecological

ce Materials	Continued and Additional Suggested Learning Experiences
	I. (cont.) sentences, make distinctions between descriptive or expository sentences as they relate to the concept.
II, rld n be used terials	6. Have student organize a bulletin board in hall or classroom demonstrating effectiveness of expository & descriptive writing. Use editorials, poems, etc. depicting ecological principles.

C
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C
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P
T

3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area

Subject

Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: The student will be able to discuss, plan, explain and survey the application of concept #3 in two modern dramas as well as conducting a survey based on the ecological problem. Affective: Through surveying and preparing an oral or written evaluation about the effects of living in an overcrowded area, the student will be able to understand the actions and attitudes of people in relationship to their surroundings.	I. Student-Centered in class activity 1. After reading one of the following plays--"The Death of a Salesman" or "West Side Story", the class will expound either verbally or in written form on the following idea. a) Death of a Salesman - Willy is the way he is because he feels "stuck" between the apartments. See stage directions before Act I and dialogue in Act I. b) West Side Story - Why the gangs? Why the hostility? Why the rooftop scenes? Overcrowded again. c) Read excerpts from the plays dealing with problem (e.g. Biff talking about the colts and freedom...Willy talking about his apartments and lack of air.)
Skills to be Learned Interpretive reading skills Speaking skills Comparison of actions in relationship to an ecological problem Interviewing skills	

ntal factors are limiting on
of organisms living within
nce, thus, each environment
ng capacity.

Discipline Area Language Arts
Subject English
Problem Orientation Overcrowding Grade 11

OBJECTIVES
e student will
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skills

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. After reading one of the following plays--"The Death of a Salesman" or "West Side Story", the class will expound either verbally or in written form on the following idea.
   a) Death of a Salesman - Willy is the way he is because he feels "stuck" between the apartments. See stage directions before Act I and dialogue in Act I.
   b) West Side Story - Why the gangs? Why the hostility? Why the rooftop scenes? Overcrowded again.
   c) Read excerpts from the plays dealing with problem (e.g. Biff talking about the colts and freedom...Willy talking about his apartments and lack of air.)

II. Outside Resource and Community Activities

1. Outside Activities - to be reported on in verbal as well as written form. (To be done as an individual or in groups of two)
   a) Record observations made in a crowded city or store, noting the reactions of people to different situations.
   b) Compare and contract the reactions of people in a crowded atmosphere vs. a non-crowded one. (Same setting.
   c) Observe and record the reactions of teacher and students in an overcrowded atmosphere.
   d) Survey people who live in apartments or tenement houses and see if they think their lives are affected by their living conditions.

Resource and Reference Materials	Continued and Additional Suggested
Publications: "West Side Story" "Death of a Salesman" Population Density Maps Photographs of local crowded conditions **Audio-Visual:** Photographs Maps Tape recorder for tape survey responses **Community:** Private business owners and workers Community members	

ials	Continued and Additional Suggested Learning Experiences
d	
y	
workers	

ESEA Title III - 59-70-0135-1 Project I-C-E

CONCEPT

4. An adequate supply of pure water is essential for life. (applicable to No.5 Concept also)

Discipline Area

Subject

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: Through the research development and presentation of contemporary materials in the form of a "Today" show, the students will demonstrate their knowledge of the need for adequate supplies of pure water and clean air as related in concepts 4 and 5 respectively. Affective: A student learns by actually preparing and presenting a written script for a "talk" show dealing with the need for pure water and clean air and how they are passively accepted rather than actively understood.	I. Student-Centered in class activity 1. Introduce concepts 4 & 5 as theme ideas for a T.V. show. 2. Ask class what procedures would have to be followed to organize a presentation centering on these themes. Ideas could include: a) use of reference materials b) consulting of periodicals c) division of class into groups for more direct study d) preparation of scripts e) use of visual aids 1) pictures (clipped and framed) 2) student prints and slides showing activities dependent on pure water and clean air. f) choosing of commentators technicians and directors for the actual show. (cont.)
Skills to be Learned Research group interaction Better understanding of mass media - especially television, listening and interpretation.	

ate supply of pure water is
or life. (applicable to No.5
o)

Discipline Area English
Subject English
Problem Orientation Water & Air Grade 11

OBJECTIVES
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Introduce concepts 4 & 5 as theme ideas for a T.V. show.
2. Ask class what procedures would have to be followed to organize a presentation centering on these themes. Ideas could include:
   a) use of reference materials
   b) consulting of periodicals
   c) division of class into groups for more direct study
   d) preparation of scripts
   e) use of visual aids
      1) pictures (clipped and framed)
      2) student prints and slides showing activities dependent on pure water and clean air.
   f) choosing of commentators technicians and directors for the actual show. (cont.)

II. Outside Resource and Community Activities

1. Library - Find essays, articles and other materials that are pertinent to the concepts. Emphasize the necessity to edit and combine these materials to add originality to show.
2. Assign the viewing of contemporary documentary shows such as "First Tuesday" and "60 Minutes" to gather ideas and techniques for the class presentation.
   a) Students should make notes about attention-getting techniques and elements of good reporting.
   b) Emphasize the importance of timing and originality in these presentations.
   c) Portions of a good speech text should be assigned for outside reading.
3. As part of the show, interviews of individuals in the community could be used. Such individuals as doctors, dentists, lawyers, factory workers (cont.)

Resource and Reference Materials

Publications:

Life
Look
Newsweek
Time
National Geographic
Newspapers
Speech Text
Media Resource Materials
"The Sea Around Us"
  R. Carson
"30 Basic Speech Experiences"
  Clark Publishers
"Speaking by Doing"
  National Textbook Co.
  Skokie, Ill.

(The included materials are generally presented with the understanding that the possibilities are limited and the breadth of this activity is very open-ended)

Audio-Visual:

News programs -T.V. & Radio

Community:

Continued and Additional Suggeste

I. (Cont.)

3. Get class ideas as to length of time required. Time could vary depending on level and resourcefulness of class from 3rd and 4th day to a couple of weeks.
4. Divide the class into groups, each with a definite subject responsibility.

rials	Continued and Additional Suggested Learning Experiences	
	I. (Cont.)	II. (Cont.)
s" gen- under- ities h of -	3. Get class ideas as to length of time required. Time could vary depending on level and resourcefulness of class from 3rd and 4th day to a couple of weeks. 4. Divide the class into groups, each with a definite subject responsibility.	and parents should be included to represent different opinions. Preperation of advance questions should be required as well as proper interview techniques. 4. The show should be community oriented whenever possible, but most of what is included will probably be of state and national significance. NOTE: The entire presentation could last from one-half to one hour as the instructor sees fit. The use of movie equipment or video-tape would enhance the experience but is not essential.

CONCEPT 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area La
Subject En
Problem Orientation Res

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: The student will be able to write a creative description illustrating that natural resources greatly affect the quality of life. Affective: Through observation and entries in journals, the student will demonstrate his awareness that the presence and absence of natural resources greatly affect the quality of life, and by describing what his community would look like with the addition of one resource.	I. Student-Centered in class activity 1. Students should take their journal entry & add a given natural resource to it. Then write a descriptive theme on what he thinks this area might look like in its changed state.	II.
Skills to be Learned Journal recording Creative descriptive writing Use of concrete writing		

ESEA Title III - 59-70-0135-1 Project I-C-E

esources are not equally

La over the earth or over Discipline Area Language Arts

En atly affect the geographic Subject English

Res nd quality of life. Problem Orientation Resource Usage Grade 11

NG AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
II. e student o write a ription illus- atural re- y affect the e. rough obser- ries in jour- ent will s awareness nce and absence ources greatly lity of life, ing what his d look like ion of one	I. Student-Centered in class activity 1. Students should take their journal entry & add a given natural resource to it. Then write a descriptive theme on what he thinks this area might look like in its changed state.	II. Outside Resource and Community Activities 1. Field trip to lake or river. Discuss the effect this natural resource has on animals and people. Why did this have such a great effect on them. Read Thoreau's journal of writings. 2. Individuals should observe a given area in the community for a number of days, then write a journal on what they observed. 3. Bring in pictures or slides of areas rich in natural resources & discuss the effect these have on the quality of life. 4. Have a DNR representative come to speak on what their area will look like in 10 years. 5.
Learned rding riptive writing te writing		

Resource and Reference Materials	Continued and Additional Sugges
Publications: Thoreau's writings Handbook for Environmental Action Audio-Visual: Film - One Day at Teton Marsh Community: Local river or lake Resource person on natural resources	

terials	Continued and Additional Suggested Learning Experiences
Action	
rsh	

C 7. Factors such as facilitating transportation,
O
N economic conditions, population growth, Discipline Area
C
E and increased leisure time have a great Subject
P
T influence on changes in land use and centers of population density. Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: The student will be able to compare, through reading & discussing, the way life has changed & the reasons for this & display what he has learned through the creation of visual aids. Affective: Through the collection & discussion of material dealing with changes of life in the Missiddippi area, the student should have a better understanding of life's changes.	I. Student-Centered in class activity A. Classroom 1. Have the class read th selections by Twain. 2. If available, show the movie to help students understand materials. 3. Discuss life of the area as it was in Twain's time.
Skills to be Learned Comparative reading Comparative discussion Organization skills	

uch as facilitating transportation,

ditions, population growth, Discipline Area Language Arts

d leisure time have a great Subject English

io changes in land use and Problem Orientation Changes of Life Grade 11

opulation density.

AR AL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
e student will npare, through cussing, the th changed & the his & display he earned through s of visual aids. hrough the discussion of ing with fe in the rea, the d have a tanding of s.	I. Student-Centered in class activity A. Classroom 1. Have the class read the selections by Twain. 2. If available, show the movie to help students understand materials. 3. Discuss life of the area as it was in Twain's time.	II. Outside Resource and Community Activities A. Outside classroom 1. Collect magazines or news articles dealing with life on the Mississippi as it is today. 2. Have the students present their findings to the class. 3. Discuss the changes that have been made & the reasons for them. 4. Prepare a collage, poster, bulletin board, etc. which depicts the two eras & how they differ.
Learned eading iscussion skills		

Resource and Reference Materials	Continued and Addtional Suggested Learning Expe
Publications: Life on the Mississippi, selected essays by Twain Magazines: Look Life Time Newsweek Audio-Visual: Movie: Life on the Mississippi Slides of the Mississippi area Community: Local library Magazine drive to find pictures Pictures or slides gotten from community members Dept. of Natural Resources	

Continued and Addtional Suggested Learning Experiences

CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.	Discipline Area La Subject En Problem Orientation At

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Following the suggested learning experiences, the student will be able to state in a written paper the relationship between a man's cultural, economic, social, and political status and his values & attitudes toward the environment. Affective: Through preparing a newscast, the student will come to recognize the relationship expressed in the concept.	I. Student-Centered in class activity 1. Organize a ten-minute presentation simulating a newscast, focusing on stated concept. a. Prepare a written newscast b. Prepare slides and/or film illustrating how cultural, economic, social, and political factors determine status of man's values & attitudes toward his environment. c. Interview people of the community who represent various economic, social, cultural, and political status, taping their responses (audio & video) 1) White collar, blue collar, etc. For interview, prepare an instrument to measure attitudes.	II.
Skills to be Learned Film-making skills Interviewing Testing or measuring attitudes Research		

omic, social, and
determine status
nd attitudes
nment.

Discipline Area Language Arts
Subject English
Problem Orientation Attitudes Grade 11

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
ng the exper- will a elation- s cultural, nd poli- s values the preparing dent will he rela- in the	I. Student-Centered in class activity 1. Organize a ten-minute presentation simulating a newscast, focusing on stated concept. a. Prepare a written newscast b. Prepare slides and/or film illustrating how cultural, economic, social, and political factors determine status of man's values & attitudes toward his environment. c. Interview people of the community who represent various economic, social, cultural, and political status, taping their responses (audio & video) 1) White collar, blue collar, etc. For interview, prepare an instrument to measure attitudes.	II. Outside Resource and Community Activities
d ng attitudes		

Resource and Reference Materials	Continued and Additional Sugg
Publications: Political Attitudes in Children by Robert Hess. The Cultural Basis of Our Environmental Crisis by Louis Moncrief. Audio-Visual: videotape newscasts for analysis Community: local news people of TV, radio, and newspaper the community library (materials on various cultures & their attitudes toward the environment)	

ce Materials	Continued and Additional Suggested Learning Experiences
n Children by Our Environ- is Moncrief.	
or analysis	
TV, radio,	
various itudes nt)	

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9. Man has the ability to mange, manipulate, and change his environment.

Discipline Area

Subject

Problem Orientat

BEHAVIORAL OBJECTIVES

Cognitive: Student at the end will be able to demonstrate his perception & understanding of concept #9 by his own oral/visual presentation to the class.

Affective: The student will demonstrate his awareness of how he can change his own world by reaearching a local ecological problem, preparing a movie, & then showing this to other students or community groups.

Skills to be Learned

Demonstration
Interview
Research
Observation

SUGGESTED LE

I. Student-Centered in class
activity
  A. Classroom
    1. Show the NBC movie,
    Abandoned.
    2. Discuss the film tec
    music, narration coor
    & selection of subjec
    3. Discuss the subject
    presentation, viz. -
    ability to manipulate
    ment. Show movie agai
    re-emphasize points o
    show them for the fir
    4. Research - In areas
    the students live, ab
    cars may not be the e
    mental issue. Seek ou
    key ecology issue in
    through the news medi
    personal observation,
    view of local ecology
    Now, make a movie sho
    element of the local
    menace. Accompany it
    commentaries or appro
    music. (If movie is t
    expensive, maybe slid
    study would work.)

he ability to mange,

a and change his

at

Discipline Area Language Arts

Subject Film Study

Problem Orientation Land Use Grade 11

LE AL OBJECTIVES
s tudent at the
ble to demon-
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, of concept
oral/visual
ec to the class.
or he student
ec ate his aware-
t e can change
- by reaearching
te gical problem,
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o to other
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Classroom
      1. Show the NBC movie, The Abandoned.
      2. Discuss the film technique, music, narration coordination & selection of subject matter.
      3. Discuss the subject used for presentation, viz. - man's ability to manipulate envioronment. Show movie again to re-emphasize points or to show them for the first time.
      4. Research - In areas where the students live, abandoned cars may not be the environmental issue. Seek out the key ecology issue in the area through the news media, personal observation, & interview of local ecology group. Now, make a movie showing one element of the local ecology menace. Accompany it with commentaries or appropriate music. (If movie is too expensive, maybe slide case study would work.)

II. Outside Resource and Community Activities
   A. Community
      1. Show two or three of the best movies submitted by the class at the next PTA meeting or at an all school assembly to spur these groups to some ecological action.

Resource and Reference Materials	Continued and Additional Suggested
Publications: Speaking By Doing, National Textbook Co.-Skokie, Ill. Audio-Visual: The Abandoned Alone in the Midst of the Land from NBC-TV Educational Enterprises, Room 1040, #0079C1, $10.00, 30 Rockefeller Plaza, New York, N.Y. 10020 A fine collection of movie write-ups all dealing with ecology Community:	

Materials	Continued and Additional Suggested Learning Experiences
nal l.	
e Land Enter- 9C1, Plaza,	
e th ecology	

CONCEPT

10. Short-term economic gains may produce long-term environmental losses.

Discipline Area Engl

Subject Engl

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: Each student will be able to make a written statement on the effect of the manipulation of the land by man through the reading of Grapes of Wrath. Affective: By discussing the novel, Grapes of Wrath, and by collecting contemporary articles concerning man's conflict with the land, the student presents an understanding of what happens when the land does give out.	I. Student-Centered in class activity 1. Read Grapes of Wrath. 2. Answer discussion questions concerning ecological significance. 3. React in writing to photos of depravation and poverty.
Skills to be Learned Relating to community attitudes on the land Writing reactions to human dilemma Analyzing good literature for ecological references	

t-term economic gains may

ong-term environmental

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Discipline Area English

Subject English

Problem Orientation Land Usage Grade 11

ORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
IN Each student e to make a tement on the he manipula- land by man reading of rath. By discussing Grapes of y collect- rary articles an's conflict d, the ents an g of what the land t.	I. Student-Centered in class activity 1. Read *Grapes of Wrath*. 2. Answer discussion questions concerning ecological significance. 3. React in writing to photos of depravation and poverty.	II. Outside Resource and Community Activities 1. Find contemporary articles and photos concerning man's conflict or dependence on the land. 2. Report on the Oklahoma Dust Bowl. 3. Research what is being done in the community to insure the lands continued productivity.
Learned community n the land ctions to ma ood liter- cological		

Resource and Reference Materials	Continued and Additional Suggested
Publications: Grapes of Wrath, John Steinbeck Ecology, a teaching unit from Campus book club including Walden, Born Free and The Bear Scholastic Book Services, 50 West 44th Street, New York, New York 10036	
Audio-Visual:	
Community:	

e Materials	Continued and Additional Suggested Learning Experiences
Steinbeck it from uding The Bear es, New York,	

C 11. Individual acts, duplicated
O
N or compounded, produce significant
C
E environmental alterations over time.
P
T

Discipline Area Langu
Subject Engli
Problem Orientation R

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Through the research of **contemporary** writing, the student will learn the importance of recycling and demonstrate this understanding by participating in an actual glass drive. Affective: The student, through actual participation in a civic problem, develops an understanding of the important part he can play in altering his environment.	I. Student-Centered in class activity A. Introduce the essentials of group discussion or planning B. Introduce an environmental cause (glass disposal, paper disposal) C. Make classroom committees responsible for: 1. Writing handout sheets 2. Writing newspaper articles D. Check sources for ideas which could be used to increase community impact	II
Skills to be Learned Research group discussion Group participation Active involvement in a project Assessment of an activity		

~~uplicated~~

e significant

ions over time.

Discipline Area Language Arts

Subject English

Problem Orientation Recycling Grade 11

VES	SUGGESTED LEARNING EXPERIENCES	
y ll te a- , ng e s ion vity	I. Student-Centered in class activity A. Introduce the essentials of group discussion or planning B. Introduce an environmental cause (glass disposal, paper disposal) C. Make classroom committees responsible for: 1. Writing handout sheets 2. Writing newspaper articles D. Check sources for ideas which could be used to increase community impact	II. Outside Resource and Community Activities A. Carry on a bottle drive in the community following the distribution of publicity materials. B. The signing on a pledge could be used to create community support. C. Distribute pledge (petition) to stores, village board, etc. to show support for exclusion of non-returnable bottles. D. Evaluate community reaction. 1. Perceivable responses 2. Any changes

Resource and Reference Materials	Continued and Additional Sugg
Publications: The English Language Ref. Group discussion and planning Current issues of weeklys Reader's Guide to Periodical Literature Speaking by Doing National Textbook Co. Skokie, Illinois (Shows all different speech formats) Audio-Visual: Community:	

erials	Continued and Additional Suggested Learning Experiences
lanning	

CONCEPT

12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area Langua

Subject Englis

Problem Orientation L

BEHAVIORAL OBJECTIVES

Cognitive: In groups, members have an opportunity to listen, speak, take notes, and organize their thoughts. Smaller groups often allow more informal approach. Both chairmen, and finally the teacher, can quiz groups on their notes on organization of thoughts.

Affective: At end of chairmen's reports, entire class might be tested by an essay question, on their beliefs regarding the concept as it appears in these writings. An open-ended discussion after final reports is another possibility.

Skills to be Learned

- Listening
- Speaking
- Note-taking
- Organizing notes

SUGGESTED LEARNING

I. Student-Centered in class activity
  - A. Divide the class into groups. Each group (of 6-8 students) could read 3 of the 4 named works. Using a chairman as spokespan, each group could develop the concept as it exists in each of the three works read.
  - B. Group meetings in which each member of each group should be encouraged to express orally, and in writing, his ideas about Keane's, Melville's, Clark's, and Updike's concepts of ownership.
  - C. Conduct a chairman's meeting to sum up findings.
  - D. Chairmen report to class on findings of various groups.

ownership must be re-
tewardship and should
upon or violate
l right of others.

Discipline Area Language Arts
Subject English
Problem Orientation Literature Grade 11

OBJECTIVES

groups, mem-
pportunity to
take notes,
heir thoughts.
often allow
approach.
and finally
an quiz
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Divide the class into groups. Each group (of 6-8 students) could read 3 of the 4 named works. Using a chairman as spokespan, each group could develop the concept as it exists in each of the three works read.
   B. Group meetings in which each member of each group should be encouraged to express orally, and in writing, his ideas about Keane's, Melville's, Clark's, and Updike's concepts of ownership.
   C. Conduct a chairman's meeting to sum up findings.
   D. Chairmen report to class on findings of various groups.

II. Outside Resource and Community Activities
   A. Bring in speakers knowledgeable about literature to speak about different authors.

Resource and Reference Materials	Continued and Additional
Publications: Pigeon Feathers and Other Stories John Updike Faucett Books, 1959. The Field J. B. Keane Bartleby the Scriver Herman Melville The Ox Bow Incident Walter VanTilky Clark Audio-Visual: Collages by students, based on their mental pictures of Updike's stories and their relationship to the concept, that private ownership should not disturb others'rights. Community: Outside speakers with emphasis on literature, perhaps a local person who is a writer, a minister (specifically, one who might recognize Melville's Calvinistic overtones), or a different English teacher.	

e Materials	Continued and Additional Suggested Learning Experiences
her Stories k based on s of Updike's lationship to ivate disturb emphasis s a local r, a y, one who lle's), or a cher.	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish to
format. Please feel free to adapt it and add more pages. Let us know
comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

each episode used in your class, you may wish to duplicate this suggested
free to adapt it and add more pages. Let us know all your critiques and
and positive.

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estions & comments)

Project I - C - E INSTRUCTION - CURRICULUM - ENVIRONMEN

ED055919

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 12

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
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E INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 12

itle III E.S.E.A.
in CESA's 3-8-9
nsin 54301

Robert Warpinski, Director
Robert Kellner, Asst. Director
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PREFACE

If you wish to excite students about their environment, hel
of over a hundred teachers, year long meetings, a summer work
ecologists, this guide means realistic, developed aid for you
which have directed teachers in writing and editing this guid

1. This guide is supplementary in nature and the episodes are
   ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know y
   to adapt, adopt, or use. By design, the range of suggesti
   mentation and usage are even wider. Many episodes are sel
   others can be changed in part or developed more keenly ove
   possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learni
   plan. The reasons are simple. No guide has all the answe
   unless viewed in the context of your classroom situation.
   give it a triple reading, check over the resources listed,
   prime your students, and seek help. The Project personnel
   knowledgement page stand ready to aid your efforts. Feel
4. The Project Resource Materials Center serves all CESA 3, 8
   private. We will send available materials pre-paid. Call
   visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school li
   Center materials. Please offer suggestions, comments, or
   service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scr
   suggestions on the episode pages or use the attached evalu
   lected in late May next year and will be used in our revis
   reactions and suggestions--negative and positive. Please
   in the episodes may refer to specific, local community res
   cases, individual school districts and teachers will have
   stitutes. A list of terms pertinent to the episodes is be
7. Ecologists and other experts have simplified the issue--su
   Creation's beauty and complexity--often noted as the work
   and human energy to save. A year's work by a hundred of y
   gesture. Without you, their work will crumble, and so mig
   let us live to think, feel, and act in harmony with our wo

---

1. Cognitive means a measurable mental skill, ability, or
2. Affective refers to student attitudes, values, and feel
3. APWI means Acceptable Performance Will Include (labels
4. EPA - Environmental Problem Area

PREFACE

to excite students about their environment, help is ready. Thanks to the efforts
red teachers, year long meetings, a summer workshop, university consultants and
is guide means realistic, developed aid for you. Please note the following ideas
ected teachers in writing and editing this guide.
is supplementary in nature and the episodes are designed--at appropriate instan-
g into existing, logical course content.
r episode offers suggestions. Since you know your students best, you decide what
dopt, or use. By design, the range of suggestions is wide; your chances for exper-
nd usage are even wider. Many episodes are self-contained, others open-ended, still
be changed in part or developed more keenly over a few weeks. These built-in
es allow you to explore.
that you try the episodes and suggested learning experiences but please pre-
reasons are simple. No guide has all the answers and no curriculum will work
ed in the context of your classroom situation. Thus, before trying an episode,
riple reading, check over the resources listed, make mental and actual notes,
students, and seek help. The Project personnel and teachers listed on the ack-
nt page stand ready to aid your efforts. Feel free to ask their help in pre-planning.
Resource Materials Center serves all CESA 3, 8, and 9 area schools--public and
e will send available materials pre-paid. Call for any help, materials, or to
ne 432-4338.
the Project ICE Bibliography in your school library for available Resource
rials. Please offer suggestions, comments, or advice--at any time--so that this
grow. Let's help each other.
rself with the guide by reacting to it with scratch ideas, notes, and extended
on the episode pages or use the attached evaluation format, which will be col-
ate May next year and will be used in our revisions. We sincerely want your
nd suggestions--negative and positive. Please note that some resources listed
odes may refer to specific, local community resources or conditions. In such
vidual school districts and teachers will have to adopt local or available sub-
A list of terms pertinent to the episodes is below.
and other experts have simplified the issue--survival--yours, mine, our students,
beeuty and complexity--often noted as the work of a genius--will take our genius
nergy to save. A year's work by a hundred of your fellow teachers is a saving
ithout you, their work will crumble, and so might we all--literally. Instead,
to think, feel, and act in harmony with our world.

Editorial Board

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e means a measurable mental skill, ability, or process based on factual data.
e refers to student attitudes, values, and feelings.
ns Acceptable Performance Will Include (labels a cognitive or mental performance.)
vironmental Problem Area

ACKNOWLEDGEMENTS: The following teachers and consultants part
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Niagara
Gillett
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dge, White Lake
, White Lake
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, Gillett

ff
Marinette
s, UW-Marinette

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John Hussey, Green Bay
Sister Barbara, St. Bernard

Robert Cook, UWGB
Dennis Bryan, UWGB

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1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Discipline Are

Subject

Problem Orient

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: The student will produce a film with voice and/or music sound track which illustrates that the sun is the source of all energy. Affective: Using creative portrayal of the sun's effect the student will develop a positive attitude and understanding of the sun's effects.	I. Student-Centered in class activity 1. Instruction in use of "Super 8" camera. 2. Instruction in use of sound with "Super 8" equipment. 3. The "production team" is organized and instructe by teacher. The productio team will discuss the con- cept and come up with ideas for a scenario deal- ing with how the sun affe life around them. 4. Each "production team" develops a "scenario outl geared to the concept of sun. 5. Each "scenario outline" analyzed and revised, fir by student groups, finall by the teacher. 6. A "mock" take is made b one team as other team an instructor observe. 7. "Mock take" is criticiz and revised. 8. "Shooting." 9. Editing of film. 10. Adding sound. (cont.)
Skills to be Learned Film making Narration of film Ability to discover and capture on film, concrete manifestations of ecological concepts.	

, the basic source
erted through plant
form all living
e processes.

Discipline Area Language Arts

Subject English

Problem Orientation Energy Grade 12

SUGGESTED LEARNING EXPERIENCES

	I. Student-Centered in class activity	II. Outside Resource and Community Activities
S ill e he e effect a der- ffects.	1. Instruction in use of "Super 8" camera. 2. Instruction in use of sound with "Super 8" equipment. 3. The "production team" is organized and instructed by teacher. The production team will discuss the concept and come up with ideas for a scenario dealing with how the sun affects life around them.	
d cap- mani- l con-	4. Each "production team" develops a "scenario outline" geared to the concept of the sun. 5. Each "scenario outline" is analyzed and revised, first by student groups, finally by the teacher. 6. A "mock" take is made by one team as other team and instructor observe. 7. "Mock take" is criticized and revised. 8. "Shooting." 9. Editing of film. 10. Adding sound. (cont.)	

Resource and Reference Materials	Continued and Additional Suggested Learni
Publications: Kodak's "How to Make a Movie" Magazine - Media and Methods "Fifteen One-Act Plays", Gore Vidal "Famous T.V. Plays", Gore Vidal. **Audio-Visual:** "Super 8" camera "Super 8" projector Film Projection Screen Sound equipment Editing equipment **Community:** Local theatre group or drama society.	I. (cont.) 11. Viewing. 12. Class evaluation of production and therein.

Continued and Additional Suggested Learning Experiences

I. (cont.)
  11. Viewing.
  12. Class evaluation of production and the ideas contained therein.

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2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

Discipline Area

Subject

Problem Orientati

BEHAVIORAL OBJECTIVES

Cognitive: Given the raw data, the student is to discover the thesis inherent in that data, and he is to state that thesis in sentence form, and he is to support that thesis in a formal essay.

Affective: To experience the process of discovery, and from this experience, begin to value the ability to synthesize. In short, each student should be able, not only to analyze data, but also to use (synthesize) the data in an organized manner.

Skills to be Learned

Analysis of data
Statement of thesis
Composition of Supporting Evidence in formal style

SUGGESTED LE

I. Student Centered in clas activity
  - A. Present "raw" data (See attached sheet).
  - B. Students are to individually analyze the raw data.
  - C. Students are to state (in a single sentence) th thesis which they have derived from their analy of the raw data.
  - D. Students are to write a brief formal essay in wh they present the thinkin which in their analysis c the raw data, led to the conclusion (thesis) they individually formulated.
  - E. Class discussion of th various analyses of the raw data.
  - F. Suggestions for Raw Da
    1. Wolf population on Isle Royale
    2. Deer herds
    3. Trees
    4. Other items of the stu dent's choice

ving organisms interact among
s and their environment,
n intricate unit called
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Discipline Area Language Arts
Subject English
Problem Orientation Pollution Grade 12

RAL OBJECTIVES
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thesis inher-
data, and he is
t thesis in
m, and he is to
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o experience
of discovery,
s experience,
ue the ability
ze. In short,
should be able,
analyze data,
use (synthesize)
an organized

e Learned
f data
of thesis
n of Supporting
n formal style

SUGGESTED LEARNING EXPERIENCES

I. Student Centered in class activity
- A. Present "raw" data (See attached sheet).
- B. Students are to individually analyze the raw data.
- C. Students are to state (in a single sentence) the thesis which they have derived from their analysis of the raw data.
- D. Students are to write a brief formal essay in which they present the thinking which in their analysis of the raw data, led to the conclusion (thesis) they individually formulated.
- E. Class discussion of the various analyses of the raw data.
- F. Suggestions for Raw Data
  1. Wolf population on Isle Royale
  2. Deer herds
  3. Trees
  4. Other items of the student's choice

II. Outside Resource and Community Activities

SEE Second Sheet for raw data

Resource and Reference Materials

Publications:

Invention and Topics: Or Where to Look for Something to Say, by Scott Elledge, p. 11.

(Published by Commission on English of the College Entrance Examination Board)

Wisconsin Dept. of Natural Resources

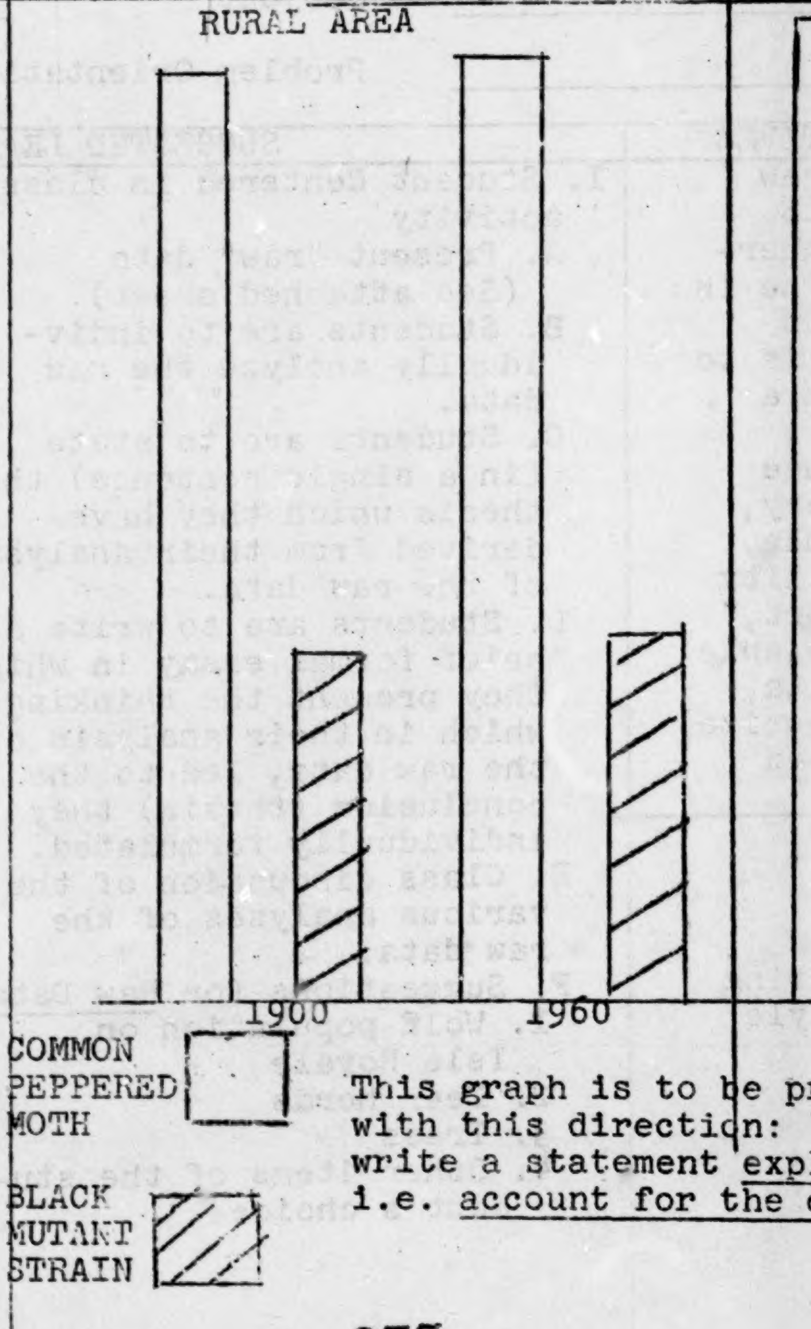
Michigan Conservation Dept.

Audio-Visual:

Community:

Students each seek raw data to present to class members.

"C O M M O N P E P P E



This graph is to be pr
with this directiqn:
write a statement expl
i.e. account for the

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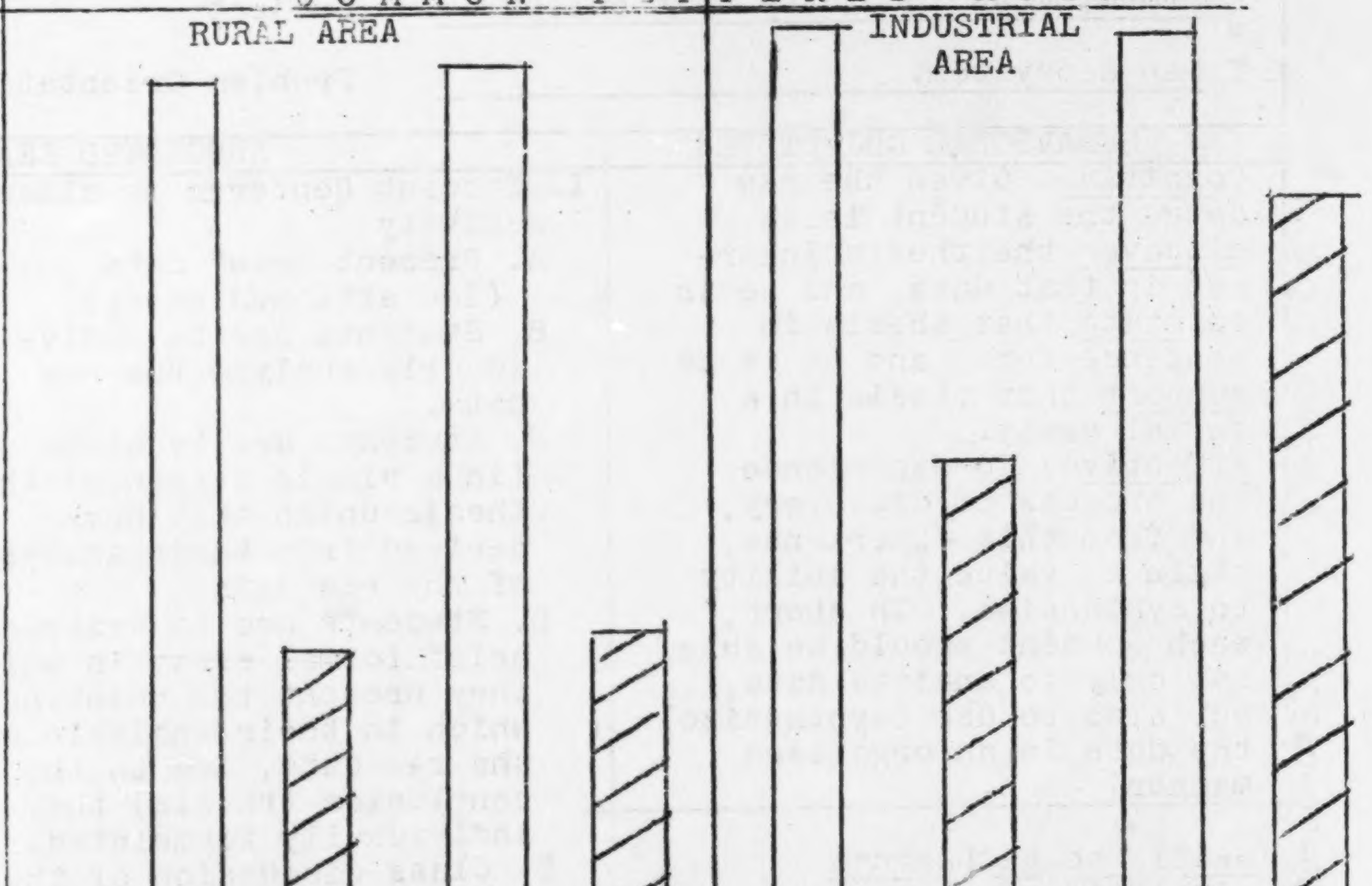
to

"COMMON PEPPERED MOTH"



COMMON PEPPERED MOTH ☐

BLACK MUTANT STRAIN ▨

This graph is to be presented to the students with this direction: "Analyze this graph, and write a statement explaining what it shows, i.e. account for the differences."

CONCEPT 3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

Discipline Area Langu

Subject Engli

Problem Orientation A

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING
Cognitive: In modern drama, the student will be able to isolate actions of characters which are influenced by the area in which they live through their interviews and discussion of the problem. Affective: By researching and comparing the attitudes of people about city life, the student will find that man, through managing and mismanaging his environment, can indirectly alter his attitudes and his life style by advocating good management techniques.	I. Student-Centered in class activity A. The class will orally read the play Street Scene. B. After reading, the class will discuss how the carrying capacity influenced the attitudes and actions of the characters. C. Discuss how one person in such a close situation can influence the life of another.
Skills to be Learned Interpretive reading skills Comparisons of actions in relationship to an ecological problem Interviewing skills	

ntal factors are limiting

rs of organisms living Discipline Area Language Arts

influence, thus, each Subject English-Drama

has a carrying capacity. Problem Orientation Attitudes Grade 12

L OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
modern drama, ll be able to s of characters uenced by the they live interviews and the problem. researching and attitudes of ity life, the ind that man, ng and mis- nvironment, alter his his life style good manage- s. earned reading skills f actions in o an ecological skills	I. Student-Centered in class activity A. The class will orally read the play Street Scene. B. After reading, the class will discuss how the carrying capacity influenced the attitudes and actions of the characters. C. Discuss how one person in such a close situation can influence the life of another.	II. Outside Resource and Community Activities A. Interview people who have lived in a large city regarding their attitudes on city life.

Resource and Reference Materials	Continued and Additional Sugge
Publications: Street Scene - Elmer Rice Time of Your Life - William Saroyan Washington Square Paperback, publisher Audio-Visual: Community: Members of the Community	

Materials	Continued and Additional Suggested Learning Experiences
ce	
rback,	

CONCEPT 4. An adequate supply of pure water is essential for life.

Discipline Area La

Subject En

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: To organize a newspaper campaign to draw attention to the need for solutions to problems drawing from an inadequate water treatment center. Affective: By getting the student actively involved in a civic problem that is immediate & relevant, he will understand the importance of pure water to his life as he researches the history of the city plant & discusses his findings.	I. Student-Centered in class activity A. Research 1. History of the current city plant 2. Report the standards set for the city which the student resides. 3. Report present conditions to write a comparison. 4. Write the newspaper articles to support your campaign.
Skills to be Learned Ability to analyze data, to establish the crux of the matter, to effectively report findings	

supply of pure

ial for life.

Discipline Area Language Arts

Subject English

Problem Orientation Treatment plant Grade 12

OBJECTIVES

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history
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o effectively
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Research
    1. History of the current city plant
    2. Report the standards set for the city which the student resides.
    3. Report present conditions to write a comparison.
    4. Write the newspaper articles to support your campaign.

II. Outside Resource and Community Activities
  A. Interview city officials and residents to discuss the situation.
  B. Take findings to the class with an oral report or set up a panel discussion.
  C. Tour the processing plant to get a first hand look. Write a report of your personal reaction.
  D. Tour water treatment center.

Resource and Reference Materials	Continued and Additional Suggest
Publications: *The Sea Around Us*, R. Carson *The Master Builder*, Ibsen Audio-Visual: Community: Resource people in the community Water plant City engineer Doctors & health officials	

e Materials	Continued and Additional Suggested Learning Experiences
Carson sen	
ials	

ESEA Title III - 59-70-0135-1 Project I C E

CONCEPT

5. An adequate supply of clean air is essential beause most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Area

Subject

Problem Orientatio

BEHAVIORAL OBJECTIVES	SUGGESTED LEAR
Cognitive: Using the media of editorial writing the student will be able to construct a sound logical editorial based on a community problem. Affective: The student will demonstrate his understanding that clean air is essential for life by writing a letter to the editor urging the curbing an air pollution source.	I. Student-Centered in class activity 1. Present two pictures-one with abundant clean air; th other with polluted air. Wh would be more conducive to life? Why? 2. What problems are created lack of clean air? - Discus 3. Survey community for examp of air pollution. Research examples for reasons why ai pollution is allowed. 4. Discuss in what ways this example creates other probl and why is it necessary in community to allow them to pollute. 5. Write editorials or "lette the editor" urging the curb sources of air pollution in community. 6. Select the best paper and it to the local newspaper.
Skills to be Learned Determining community problems Writing of editorials Evaluation of editorials	

e supply of clean air is
use most organisms Discipline Area Language Arts
gen, through respiration, Subject English
e energy in their food. Problem Orientation Clean Air Grade 12

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
	I. Student-Centered in class activity	II. Outside Resource and Community Activities
g the media iting the able to nd logical on a em. student will understand- air is ife by writ- the editor ing an air e. arned mmunity torials editorials	1. Present two pictures-one with abundant clean air; the other with polluted air. Which would be more conducive to life? Why? 2. What problems are created by lack of clean air? - Discuss. 3. Survey community for example of air pollution. Research examples for reasons why air pollution is allowed. 4. Discuss in what ways this one example creates other problems and why is it necessary in this community to allow them to pollute. 5. Write editorials or "letters to the editor" urging the curbing of sources of air pollution in the community. 6. Select the best paper and submit it to the local newspaper.	

Resource and Reference Materials	Continued and Additional Suggeste
Publications: Newspaper for examples of editorials. Audio-Visual: SMOG: The Air Pollution Game Environmental Pollution...Our World in Crisis - Ward's filmstrip Community: Editorial writer of local newspaper.	

Materials	Continued and Additional Suggested Learning Experience
of	
n Game ...Our 's film-	
l news-	

CONCEPT

6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

Discipline Area L

Subject E

Problem Orientation Re

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNING	
Cognitive: Students will be able to take notes, to view things from others point of view, through listening to authorities on given subjects and thru their discussion. Affective: Through discussion, students will become aware of different life styles & how natural resources shape these life styles by participating in an open-ended discussion involving every student.	I. Student-Centered in class activity 1. Student discussion in which some students (or all) might role-play Indian & white attitudes. Discussion would center on apparent differences in values systems of Indians & whites as illustrated in speakers' views, as seen on field trip.	II
Skills to be Learned Notetaking Listening Discussion techniques Role-playing - seeing things from various points of view		

s are not equally

e earth or over Discipline Area Language Arts

fect the geographic Subject English

ity of life. Problem Orientation Resource Usage Grade 12

CTIVES	SUGGESTED LEARNING EXPERIENCES	
will s, to ers gh ities d thru dis- il erent tural e life ing in sion ent.	I. Student-Centered in class activity 1. Student discussion in which some students (or all) might role-play Indian & white attitudes. Discussion would center on apparent differences in values systems of Indians & whites as illustrated in speakers' views, as seen on field trip.	II. Outside Resource and Community Activities 1. Speaker on Indians' use of land & students ask questions, take notes. 2. Speaker on white man's use of land - students ask questions, take notes. 3. Field trip, together or individually, to "areas" (in nature) managed, basically by whites; to another area managed basically by Indians.
es ng points		

Resource and Reference Materials	Continued and Additional Suggeste
Publications: The Next Hundred Years by Harrison Brown, Viking Press, 1957.	
Audio-Visual: Student-created collages of various people's use or misuse of land Pictures or slides taken on field trip Records on this area or problem	
Community: Speaker - Indian leaders, industry spokesman, DNR spokesman Historical records - local library, including pictures of given areas, then & now.	

Materials	Continued and Additional Suggested Learning Experiences
y Harrison 57.	
of	
on	
roblem	
l res ow.	

C 7. Factors such as facilitating transportation,
O
N economic conditions, population growth, Discipline Area Lang
C
E and increased leisure time have a great Subject Engl
P
T influence on changes in land use and Problem Orientation L
centers of population density.

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNIN
Cognitive: Students will work on their reading skills for characterization, theme... Students are afforded the chance to work on writing skills-organization, argument, synthesis, conclusion, etc. Students work at listening carefully-taking notes. Check them against a playback of the speaker's talk. Affective: Students think about influences of mass society on their lives. These influences-e.g. of mass media-might be the subject. Students become more sophisticated concerning life styles especially if they are enabled to see middle, upper & lower class of an essay.	I. Student-Centered in class activity A. Classroom 1. Read novels pertaining to topics being discusse 2. Mock trial in which one or more students might b held & accused of some type of fundamental "heresy". e.g. The famil is a worthless unit or the family is a very wor while institution. 3. 2 or 3 students do an opinion poll on some unsettling idea & then report to class. 4. Debate on "Whither mass society?" 5. Theme assignment - topi "How close are we to 198 6. Panel on "Creative Use of Leisure Time."
Skills to be Learned Reading for content, speed Writing-organization Listening-notetaking Standards in dress, politics	

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such as facilitating transportation,
nditions, population growth, Discipline Area Language Arts
ed leisure time have a great Subject English
n changes in land use and Problem Orientation Leisure Time Grade 12
population density.

AL OBJECTIVES

tudents will
reading skills
ization, theme...
afforded the
k on writing
zation, argument,
nclusion, etc.
at listening
ing notes. Check
a playback of
talk.
tudents think
ces of mass
eir lives.
ces-e.g. of
ght be the
ents become
cated
fe styles
they are
e middle,
class of an

Learned
content, speed
nization
tetaking
dress, politics

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. Read novels pertaining to topics being discussed.
    2. Mock trial in which one or more students might be held & accused of some type of fundamental "heresy". e.g. The family is a worthless unit or the family is a very worthwhile institution.
    3. 2 or 3 students do an opinion poll on some unsettling idea & then report to class.
    4. Debate on "Whither mass society?"
    5. Theme assignment - topic: "How close are we to 1984?"
    6. Panel on "Creative Use of Leisure Time."

II. Outside Resource and Community Activities
  A. Outside classroom
    1. Students could interview various people by asking them specific questions such as:
      a. Do you feel increased pressures in your life to conform? If so, why?
      b. Do you feel people are prepared (formally or otherwise) to use increased leisure time creatively?

Resource and Reference Materials	Continued and Additional Suggeste
Publications: 1984, George Orvell Brave New World by Huxley Walden II, B. F. Skinner Audio-Visual: Collages showing leisure time activities. Some emphasis might be put on "quality" of activities. Film: 1984 Community: Outside speakers: Minister might talk on the church as an establishment tool Leader in industry could speak on shortened work week, attendant problems	

Materials	Continued and Additional Suggested Learning Experiences
ey	
time is might activities.	
the ment tool d speak on ttendant	

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CONCEPT 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

Discipline Area

Subject

Problem Orientat

BEHAVIORAL OBJECTIVES

Cognitive: Students can work on their reading skills analysis of social factors involved, can look at their writing techniques & work at verbalizing their social patterns' influences on people's lives.

Affective: Students should become aware that various sociological factors have influenced others & will influence their lives. Students might be given a choice of essay topics to write on.

Skills to be Learned

Reading
Writing
Notetaking
Organizing material
Listening

SUGGESTED LE

I. Student-Centered in clas activity

1. Read one or more novels noted in publications. Entire class could read o work or class could be divided into groups respo ible for discussing each novel.
   a. Theme on topic such as slavery, physical or int lectual.
   b. Have a panel or debate theme of the novel.
2. Dramatization of given scenes from novel e.g. death scene in Grapes of Wrath, or opening scene replete with sleepy husba and wife in bathroom in Babbitt.

ural, economic, social, and
al factors determine status
s values and attitudes
his environment.

Discipline Area Language Arts
Subject English
Problem Orientation Social Status Grade 12

VIORAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
: Students can heir reading skills of social factors can look at their echniques & work izing their social influences on lives. : Students should are that various cal factors have d others & will their lives. might be given a essay topics to	I. Student-Centered in class activity 1. Read one or more novels noted in publications. Entire class could read one work or class could be divided into groups responsible for discussing each novel. a. Theme on topic such as: slavery, physical or intellectual. b. Have a panel or debate on theme of the novel. 2. Dramatization of given scenes from novel e.g. death scene in Grapes of Wrath, or opening scene replete with sleepy husband and wife in bathroom in Babbitt.	II. Outside Resource and Community Activities
be Learned rg rg material ng		

Resource and Reference Materials	Continued and Additional Suggested Learning
Publications: The Grapes of Wrath by John Steinbeck. The Bear by Wm. Faulkner. Main Street and Babbitt by Sinclair Lewis.	
Audio-Visual: Film - The Grapes of Wrath Collage - of people who make up all our Main Streets; of how the "curse" of slavery affects this land's culture (North & South) today.	
Community: Chamber of Commerce speaker (on some such "service-oriented" activity to espouse the causes of Main Street, U.S.A. Speaker who might talk on the evils of finance capitalism.	

als	Continued and Additional Suggested Learning Experiences
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9. Man has the ability to manage, manipulate, and change his environment.

Discipline Area La

Subject En

Problem Orientation

BEHAVIORAL OBJECTIVES

Cognitive: Given the position papers the student is to declare himself for either position A or B. Based on his research of his stand or position, the student is to defend his stand verbally &/or in writing to other students in the class.

Affective: Students should be able, through listening to others & through diligent research, to realize that the quality of his environment is something in which he must involve himself. The students' notes taken during discussion could be collected & evaluated by the instructor.

Skills to be Learned

Literary analysis
Researching an issue
Defending a position, verbally or in writing
Note taking

SUGGESTED LEARN

I. Student-Centered in class activity
  A. Classroom
    1. Two brief papers are presented by instructor
       Paper A - takes positio
       that to solve technolog
       dilemma is to carry out
       further technological
       development. e.g. Buchm
       Fuller's "Design Strate
       approach. Paper B - pre
       position of anti-techno
       individuals or groups.
       Cummings poems or Reich
       "The Greening of Americ
    2. Students are asked to
       a stand for position A
       Students should researc
       their stand. (The numbe
       days used for research
       optional.)
    3. Students are either to
       debate (formally or inf
       or to write their posit
       essay form.

s the ability to manage,

e, and change his

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Discipline Area Language Arts

Subject English

Problem Orientation Land Use Grade 12

RAL OBJECTIVES	SUGGESTED LEARNING EXPERIENCES	
Given the pers the student ke himself for tion A or B. s research of r position, the to defend his lly &/or in other students s. Students should rough listening through diligent o realize that of his environ- ething in which olve himself. s' notes taken ussion could be evaluated by tor.	I. Student-Centered in class activity A. Classroom 1. Two brief papers are presented by instructor. Paper A - takes position that to solve technological dilemma is to carry out further technological development. e.g. Buchminster Fuller's "Design Strategy" approach. Paper B - present position of anti-technological individuals or groups. e.g. Cummings poems or Reich's "The Greening of America". 2. Students are asked to take a stand for position A or B. Students should research their stand. (The number of days used for research is optional.) 3. Students are either to debate (formally or informally) or to write their positions in essay form.	II. Outside Resource and Community Activities A. Invite a factory owner, conservation agent or a person from DNR to give a talk to class.
e Learned nalysis g an issue a position, r in writing g		

s the ability to manage,
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Discipline Area Language Arts
Subject English
Problem Orientation Land Use Grade 12

RAL OBJECTIVES

Given the
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other students
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Students should
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nalysis
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a position,
or in writing
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Classroom
    1. Two brief papers are presented by instructor. Paper A - takes position that to solve technological dilemma is to carry out further technological development. e.g. Buchminster Fuller's "Design Strategy" approach. Paper B - present position of anti-technological individuals or groups. e.g. Cummings poems or Reich's "The Greening of America".
    2. Students are asked to take a stand for position A or B. Students should research their stand. (The number of days used for research is optional.)
    3. Students are either to debate (formally or informally) or to write their positions in essay form.

II. Outside Resource and Community Activities
  A. Invite a factory owner, conservation agent or a person from DNR to give a talk to class.

Resource and Reference Materials	Continued and Additional Suggest
Publications: Utopia ar Oblivion, Buchminster Fuller Progress is a Comfortable Disease, & other poems by Cummings The Greening of America, C. Reich What Good are Pelicans For, J. Schrank, Media & Methods, May, 1970, p. 32 Those Good New Days, G. Seaborg, Saturday Review, March 6, 1971, p. 52	
Audio-Visual: Magazines & news pictures Films (available form I.C.E. office) "Later...Perhaps" "The Gifts"	
Community: DNR Factory owner Conservationist	

rials	Continued and Additional Suggested Learning Experiences
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Reich	
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borg, 1971,	
. office)	

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10. Short-term economic gains may produce long-term environmental losses.

Discipline Area

Subject

Problem Orientati

BEHAVIORAL OBJECTIVES

Cognitive: Small groups' work should aid students in developing tools of discussion, listening, note taking, and analyzing.

Affective: Students should become more aware of the effects (both good & bad) of our using our environment for economic gain by taking an active part in a symposium discussion centered around the biologic, social, economic & ethical views of environmental losses.

Skills to be Learned

- Listening
- Note taking
- Analyzing

SUGGESTED LE

I. Student-Centered in clas
activity
A. Classroom
1. Class could be divi
into small groups, e
group to deal with o
basic reading of the
mentioned.
a. Group 1 - the bio
view. In dramatiza
use of collages, p
speakers, this gro
could base its wor
Our Plundered Plan
b. Groups 2 & 3 - th
two groups could,
dramatization, pan
speakers, deal wit
effects of human g
(short-sightedness
individuals (& gro
social & economic
problems. Group 2
The Octopus & Grou
use The Jungle.
c. Group 4 - probabl
if held till last,
ticularly because
Walden's more opti
tone (in relation
used by the first
This group could u

n economic gains may

term environmental

Discipline Area Language Arts

Subject English

Problem Orientation Land Use Grade 12

OBJECTIVES	SUGGESTED LEARNING EXPERIENCES I. Student-Centered in class activity	II. Outside Resource and Community Activities
ll groups' students ools of tening, nd udents should are of the good & bad) ur environ- mic gain by ve part in scussion d the biologic, ic & ethical onmental losses. earned	A. Classroom 1. Class could be divided into small groups, each group to deal with one basic reading of the 4 mentioned. a. Group 1 - the biologic view. In dramatization use of collages, panels, speakers, this group could base its work on Our Plundered Planet. b. Groups 2 & 3 - these two groups could, thru dramatization, panels, speakers, deal with the effects of human greed (short-sightedness) on individuals (& groups) s social & economic problems. Group 2 use The Octopus & Group 3 use The Jungle. c. Group 4 - probably best if held till last, particularly because of Walden's more optimistic tone (in relation to texts used by the first 3 groups). This group could use (cont.)	

Resource and Reference Materials	Continued and Additiona
Publications: *Walden*, Thoreau *Our Plundered Planet*, F. Osborn 1948, Little, Brown & Co. *The Octopus*, F. Norris *The Jungle*, U. Sinclair	I. (cont.) selections from *Wald* learns to live withi collages, panels and
Audio-Visual: Students can make collages, slides; films on our meat packing industry (& others) are available	
Community: Speakers DNR Local conservationist's group Paper mill manufacturer Sociologist	

Reference Materials	Continued and Additional Suggested Learning Experiences
au Planet, F. Osborn , Brown & Co. F. Norris . Sinclair	I. (cont.) selections from Walden to show what happens when man learns to live within the structure of nature. Use collages, panels and readings.
make collages, ns on our meat ıstry (& others) le	
rvationist's group manufacturer	

CONCEPT

11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Discipline Area

Subject

Problem Orienta

BEHAVIORAL OBJECTIVES	SUGGESTED LEARN
Cognitive: Students will work on their reading skills: seeing characterization, recognizing themes, main ideas. Students can work on their writing, specifically, they might try a descriptive passage (or text) in which they try to show their reader a lovely setting in nature, or a desolate industrial area. Affective: Students should see the strong relationships between individual's actions and our emotional-psychic and physical environment. Specifically, students might write a number of short papers in which they can portray their own attitudes toward both psychic and/or physical environmental change.	I. Student-Centered in class activity A. Panels - on various books. B. A symposium - in which the participants try to establish what (if any) relationships exist between the inner environment (psychic) and the exterior (physical) environment. C. Readings followed by films.
Skills to be Learned Close reading Writing with careful structure	

l acts, duplicated
, produce significant
l alterations over time.

Discipline Area Language Arts

Subject English

Problem Orientation Aesthetic Grade 12

L OBJECTIVES
dents will
reading skills:
erization,
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s can work on
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a descriptive
xt) in which
ow their
y setting in
esolate
a.
dents should
relationships
dual's actions
nal-psychic
nvironment.
students might
of short
h they can
own attitudes
ychic and/or
onmental

earned

careful

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
  A. Panels - on various books.
  B. A symposium - in which the participants try to establish what (if any) relationships exist between the inner environment (psychic) and the exterior (physical) environment.
  C. Readings followed by films.

II. Outside Resource and Community Activities
  A. Outside speakers - an artist, a politician could sit on panels with students

Resource and Reference Materials	Continued and Additional Suggested Lea
Publications: -The Picture of Dorian Gray Oscar Wilde Dell, Signet -All the King's Men Robert P. Warren -Population Bomb Paul Erhlich -The "Legend Lake" controversy radio, newspaper editorials - "Under the Lion's Paw" (and other stories) Hamlin Garland -The Greening of America C. Reich Audio-Visual: -Film: All the King's Men -Film: The Picture of Dorian Gray Community: -Speakers from D.N.R., political parties (representatives) -Demonstration by local artist (commercial) of individuals' reactions to changed psychic or physical environment.	

e Materials	Continued and Additional Suggested Learning Experiences
Gray	
oversy ials	
n rian Gray	
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CONCEPT 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

Discipline Area La

Subject En

Problem Orientation

BEHAVIORAL OBJECTIVES	SUGGESTED LEARNI
Cognitive: The student will voice his own philosophy on the question of man's relationship to the earth - Is man owner or steward? Affective: Students should become more aware of others & their own attitudes toward fundamental ecological issues. These new born attitudes toward stewardship, should be evaluated by having a group of 3 or 4 students work out a questionaire with the aim of measuring the class's attitudes.	I. Student-Centered in class activity A. Classroom 1. Read The Bear by Wm. Faulkner, 5 parts. 2. Analyze parts 1, 2, 3, & emphasize on themes of "initiation into manhood" & "stewardship of land". 3. Critical reading of part 4 with emphasis on mixed up value systems, rape o land vs. urge to use lan wisely 4. Each student should eit a. Get on a penel which discuss one of the bas themes in the book. b. Present a paper on so issue as McCaslins vie of the land. c. Give a talk on some issue such as, "The changing view of the l from stewardship (Boon 1, 2, 3) to greed (Boo part 5). 5. Work out a questionaire the aim of measuring the class's attitudes and th have a class discussion.
Skills to be Learned Reading difficult material Analysis of parts & whole Verbal &/or written presentation of ones individual "position" on a fundamental issue	

ship must be
wardship and
ch upon or violate
ght of others.

Discipline Area Language Arts
Subject English
Problem Orientation Stewardship Grade 12

ECTIVES	SUGGESTED LEARNING EXPERIENCES	
dent will sophy on 's earth - ward? s should f others es toward cal orn ewardship, by 3 or 4 a he aim lass's	I. Student-Centered in class activity A. Classroom 1. Read The Bear by Wm. Faulkner, 5 parts. 2. Analyze parts 1, 2, 3, & emphasize on themes of "initiation into manhood" & "stewardship of land". 3. Critical reading of part 4 with emphasis on mixed up value systems, rape of land vs. urge to use land wisely 4. Each student should either: a. Get on a penel which will discuss one of the basic themes in the book. b. Present a paper on some issue as McCaslins view of the land. c. Give a talk on some issue such as, "The changing view of the land, from stewardship (Boon-parts 1, 2, 3) to greed (Boon-part 5). 5. Work out a questionaire with the aim of measuring the class's attitudes and then have a class discussion.	II. Outside Resource and Community Activities
ed material & whole en ones tion" on sue		

Resource and Reference Materials	Continued and Additional Suggest
Publications: Faulkner edited by Malcolm Cowley, Viking pub., (Fine introduction) Six Great Modern Short Novels, Dell pub. Audio-Visual: Students could make slides, collages showing our use or misuse of our land The Gifts, U.S. Dept. of Interior Federal Water Quality Association Office of Public Instruction Community: Speaker from DNR Local farmer Interested citizen Conservationis group (All can give talks on use of land)	

rence Materials	Continued and Additional Suggested Learning Experiences
Malcolm Cowley, e introduction) hort Novels,	
slides, collages misuse of our	
t. of Interior ity Association nstruction	
o on use of land)	

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as neede

In commenting on each episode used in your class, you may wis format. Please feel free to adapt it and add more pages. Let us comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)

PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

g on each episode used in your class, you may wish to duplicate this suggested
feel free to adapt it and add more pages. Let us know all your critiques and
tive and positive.

Objectives
ve:

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earning Experiences
:

& Community Activities:

esource & Reference Materials
uggestions & comments)